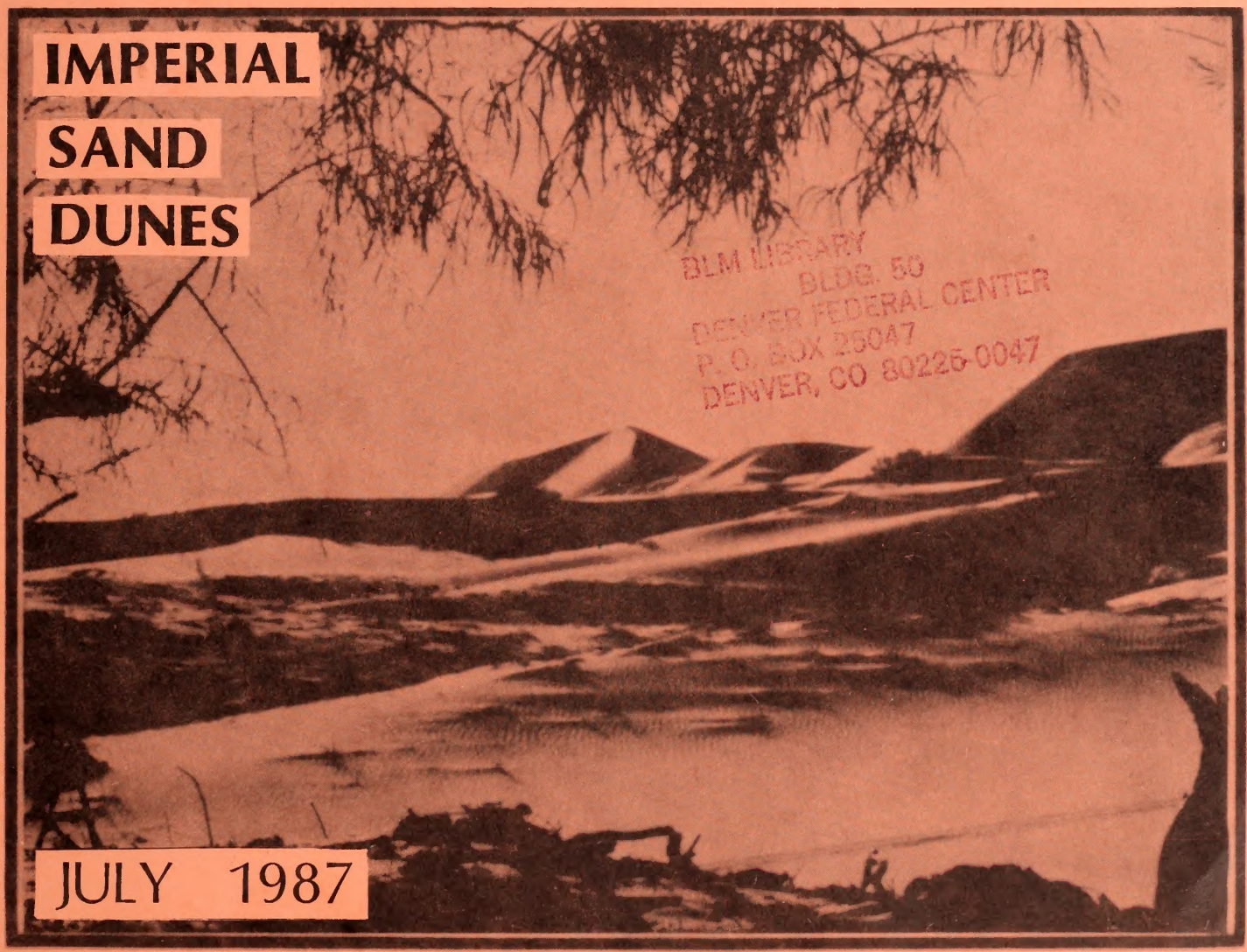
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IMPERIAL SAND DUNES



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JULY 1987

Department of the Interior
BUREAU OF LAND MANAGEMENT
El Centro Resource Area, California

RECREATION AREA MANAGEMENT PLAN and ENVIRONMENTAL ASSESSMENT for the IMPERIAL SAND DUNES JULY 1987
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JUN 22 1987

Dear Reader:

Enclosed is the final Imperial Sand Dunes Recreation Area Management Plan (RAMP) and Environmental Assessment (EA). This is a comprehensive and detailed management plan for the most popular recreational area in the California Desert. Developed within the guiding framework of the Desert Plan, the Imperial Sand Dunes RAMP provides specific direction for resolving many of the compelling issues and problems currently facing the dunes.

I want to thank all of you who participated in the preparation of this plan through attendance at workshops, thoughtful responses to the planning workbook, and letters of comment on the draft RAMP and EA. As a result of your comments on the draft, a number of changes have been made in the final RAMP and EA. These changes are summarized in Chapter 2 of the EA, beginning on page EA-13. Copies of all comment letters are found in Appendix F.

Our work toward meeting the management challenge of the dunes has only just begun with the completion of this RAMP . We will need your continued assistance in the coming months and years as we seek to move forward with the program prescribed by this plan. Many decisions will be required as the RAMP is implemented; we urge you to stay involved. Let us know how we're doing, and in what areas you think we could do better.

Finally, I urge you to become involved directly as a BLM volunteer. Volunteer opportunities available in the Imperial Sand Dunes include answering visitors' questions at the Cahuilla Ranger Station, collecting litter, campground and other maintenance operations, assisting in resource studies and wilderness monitoring, and participating in the Imperial Volunteer Dune Patrol. If you are interested in participating as a volunteer, contact our El Centro Resource Area Office, 333 South Waterman Avenue, El Centro, California, 92243.

Sincerely,

Gerald E. Hillier
District Manager

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SECTION 1
Record of Decision

SECTION 2
Recreation Area Management Plan

SECTION 3
Environmental Assessment

SECTION 4
Appendices

Publication Index Number-
BLM-CA-PL-87-001
8320

RECORD OF DECISION

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RECORD OF DECISION

Proposed Action

The proposed action is approval and implementation of the Imperial Sand Dunes Recreation Area Management Plan (RAMP).

Finding of No Significant Impact

Environmental Assessment prepared by:

Steven M. Nelson — 6/12/87

Lead Outdoor Recreation Planner
El Centro Resource Area

Date

We have reviewed the environmental assessment prepared to analyze the environmental effects of the proposed action and have determined that the proposed action and approved mitigation measures would not have significant environmental effects on the human environment. Therefore, an environmental impact statement is not required to further analyze the environmental effects of the proposed action.

Peter M Ott — 6/12/87

Chief, Branch of Resource Program Operations
El Centro Resource Area

Date

G. Ben Koski — 6-12-87

Area Manager
El Centro Resource Area

Date

William A Daigle — 6-16-87

Chief, Planning and Environmental Staff
California Desert District

Date

I concur:

Edward Spang — 6/22/87

District Manager
California Desert District

Date

Decision

I have reviewed the Imperial Sand Dunes Recreation Area Management Plan (RAMP) and Environmental Assessment (EA), and find that this land use proposal is technically adequate and that consideration has been given to all resource values. I approve the plan and mitigating measures stipulated in the EA as the decision of the Bureau on the proposed action.

Edward G. Hein — 6/22/87

District Manager
California Desert District

Date

Rationale

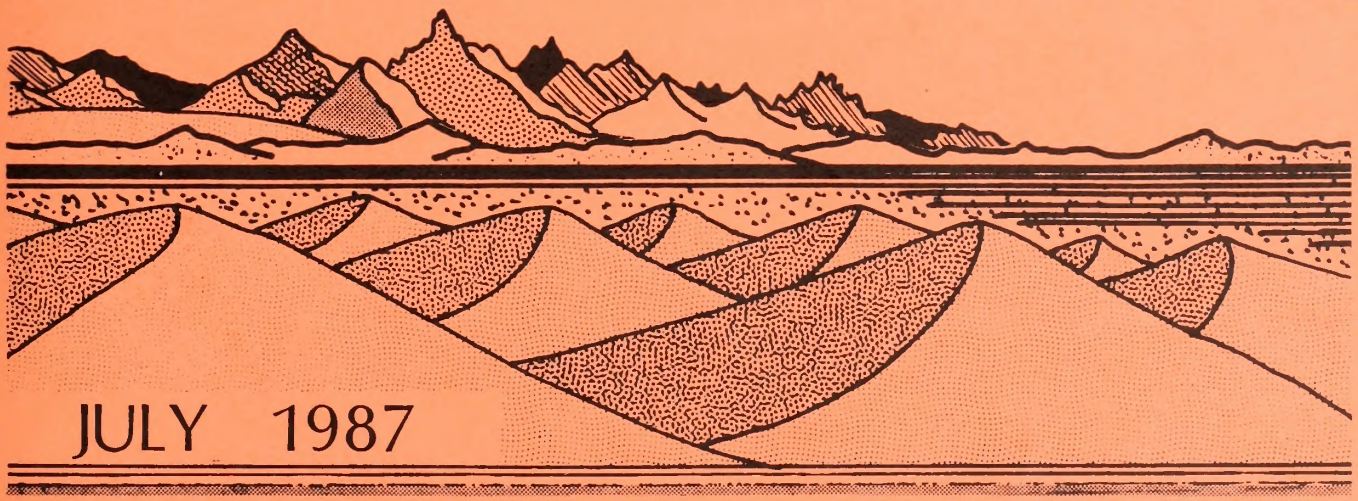
The RAMP represents an overall strategy for utilizing limited funding to meet the challenges of management in the Imperial Sand Dunes through the year 2000, within the framework of the California Desert Plan. The RAMP presents a coordinated implementation strategy organized around five funding levels. The developments proposed at any funding level will not occur unless the corresponding operations and maintenance, resource monitoring, and resource protection measures for that level are also funded. This will insure that development will not outpace the Bureau's ability to operate and maintain facilities and protect sensitive resources.

The RAMP also links major development actions with actual use levels that may develop during the life of the plan, as well as with the results of an ongoing resource monitoring program. The linkage of available funding, actual demand, and resource condition will insure that all of these factors are given adequate consideration by Bureau managers as decisions on implementation of individual RAMP proposals are made over the next 13 years.

Through this coordinated and systematic approach, the RAMP will establish a framework within which the Bureau can provide for a wide range of recreation opportunities while protecting the sensitive resources of the Imperial Sand Dunes. The RAMP program will help to maintain public safety and improve public sanitation in the recreation area while accommodating expected increases in recreational demand. At the same time, resources will be protected through implementation of RAMP resource protection prescriptions and mitigation measures stipulated in the EA.

RECREATION AREA MANAGEMENT PLAN

IMPERIAL SAND DUNES



JULY 1987

Department of the Interior
BUREAU OF LAND MANAGEMENT
El Centro Resource Area, California

Imperial Sand Dunes

RECREATION AREA MANAGEMENT PLAN

U.S. Department of the Interior
Bureau of Land Management
California Desert District
El Centro Resource Area

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Prepared by: Steven M. Nelson — 6/12/87

Steven M. Nelson, Lead
Outdoor Recreation Planner

Date

Recommended by: G. Ben Koski — 6-12-87

G. Ben Koski, Area Manager

Date

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PART I
Introduction

PART I - INTRODUCTION

A. Location and Setting

The Imperial Sand Dunes, sometimes called the Algodones Dunes, are the largest mass of sand dunes in California. This dune system extends for more than 40 miles along the eastern edge of the Imperial Valley agricultural region in a band averaging five miles in width (see Map 1 for regional location).

Rising to heights of over 300 feet above the surrounding desert floor, the dunes are a well-known landmark to local residents and the thousands of highway travelers who pass through them every year. While summer temperatures often rise to over 110° F and annual rainfall averages less than two inches, the mild climate between October and May attracts tens of thousands of off-highway vehicle (OHV) enthusiasts to the area.

Major place names and landmarks within the recreation area are shown on Map 2. The dune system is traversed by two major east-west highways, near which recreational use has traditionally been concentrated. In the north, State Highway 78 crosses at the small settlement of Glamis. Highway 78 connects Brawley (29 miles west of Glamis) with Blythe (60 miles northeast of Glamis). At the south end of the recreation area, Interstate Highway 8 crosses the dunes at Buttercup Valley. Interstate 8 provides access from El Centro (40 miles west of Buttercup) and Yuma, Arizona (20 miles east). These highways also provide access from the major urban centers of Los Angeles, San Diego, Phoenix, and Tucson, all of which are within a day's drive of the recreation area.

Generally, the west boundary of the recreation area follows the abandoned Old Coachella Canal, while the east boundary follows the Southern Pacific Railroad. Exceptions have been made in order to include adjacent lands on which recreational use patterns are heavily influenced by the sand dunes.

B. Previous Planning

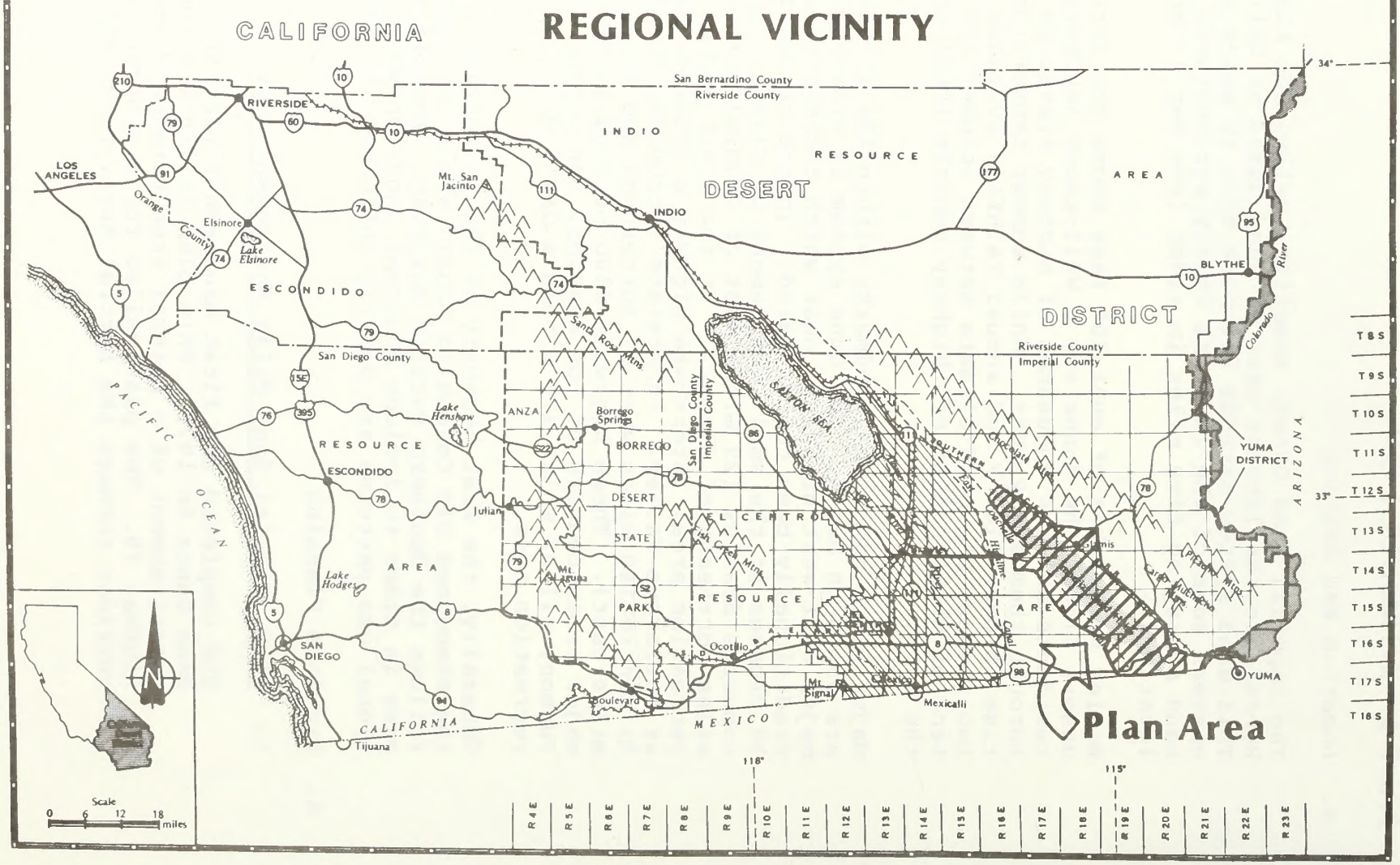
1. 1972 Imperial Sand Hills Management Plan

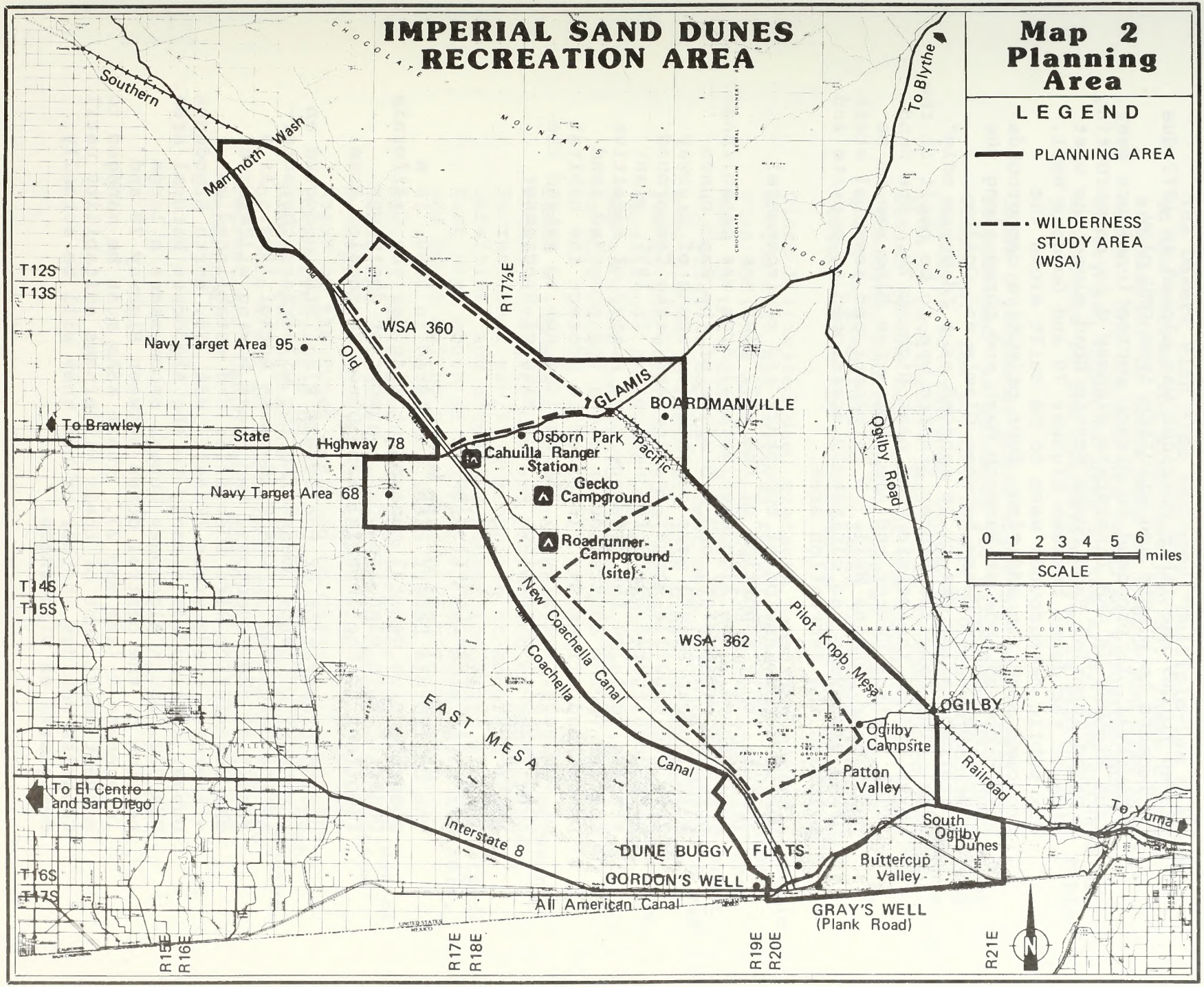
BLM completed the first management plan for the Imperial Sand Dunes in 1972. This plan called for the establishment of a Natural Area between Mammoth Wash and Highway 78. The plan called for a vehicle access corridor through the Natural Area, which was otherwise

MAP 1

IMPERIAL SAND DUNES

EL CENTRO RESOURCE AREA




IMPERIAL SAND DUNES RECREATION AREA
Map 2 Planning Area
LEGEND
PLANNING AREA
WILDERNESS STUDY AREA (WSA)
0 1 2 3 4 5 6 miles
SCALE
Southern
Mammoth Wash
To Blythe
T12S
T13S
R17½E
WSA 360
Navy Target Area 95
Old
GLAMIS
BOARDMANVILLE
To Brawley
State
Highway 78
Osborn Park
Cahuilla Ranger Station
Pacific
Ogilby Road
Gecko Campground
Navy Target Area 68
Roadrunner Campground (site)
T14S
T15S
New Coachella Canal
Coachella
WSA 362
Pilot Knob Mesa
OGILBY
Ogilby Campsite
EAST MESA
Canal
Patton Valley
Railroad
To El Centro and San Diego
Interstate 8
To Yuma
South Ogilby Dunes
DUNE BUGGY FLATS
Buttercup Valley
T16S
T17S
GORDON'S WELL
All American Canal
GRAY'S WELL (Plank Road)
R15E
R16E
R17E
R18E
R19E
R20E
R21E
N

closed to OHV use (this corridor was closed in 1977 due to impacts to plants and wildlife from ORV play activity). It proposed to direct recreational use away from Highway 78 and Interstate Highway 8 by constructing a paved Imperial Sand Dunes Scenic Road along the west side of the dunes between Highway 78 and Gordons Well. Six public campgrounds were to be built along the proposed road. In addition, four primitive campgrounds were proposed, one at Mammoth Wash and three along the east side of the dunes between Glamis and Ogilby. Buttercup Valley was to be managed as a "day-use only" area. The Cahuilla Ranger Station was to be built at the north end of the scenic road near Highway 78. The Sand Hills Visitor Center and Administrative Site was to be built near Gordons Well. A permanent and seasonal staff of 44 employees was ultimately envisioned to operate and maintain the recreation area.

Due to a combination of budgetary and environmental factors, only a portion of the 1972 plan was implemented. The Algodones Natural Area was established north of Highway 78, and 5.3 miles of the Sand Dunes Road ("Gecko Road") were constructed south of Highway 78. The Cahuilla Ranger Station and Gecko Campground were constructed along the new road. In 1977, plant studies revealed the presence of a number of sensitive species in the central dunes along the proposed Sand Dunes Road alignment. In order to protect the habitat of the sensitive plants, BLM decided not to extend the road beyond its terminus at the site of Roadrunner Campground.

2. 1980 California Desert Plan

The California Desert Plan, completed in 1980, is a comprehensive general management plan for the California Desert. This plan included a number of decisions important to the Imperial Sand Dunes Recreation Area.

During preparation of the Desert Plan, BLM conducted an inventory of lands possessing the wilderness characteristics described in the Wilderness Act of 1964. As a result of the inventory, two areas having wilderness characteristics were identified and established as wilderness study areas (WSAs). WSA 360, North Algodones Dunes, corresponds closely to the Algodones Natural Area. WSA 362, South Algodones Dunes, encompasses a large portion of the central dunes between Highway 78 and Interstate 8 (see Map 2). These WSAs must be managed to prevent impairment of their wilderness suitability until Congress decides whether or not they will be actually designated as wilderness.

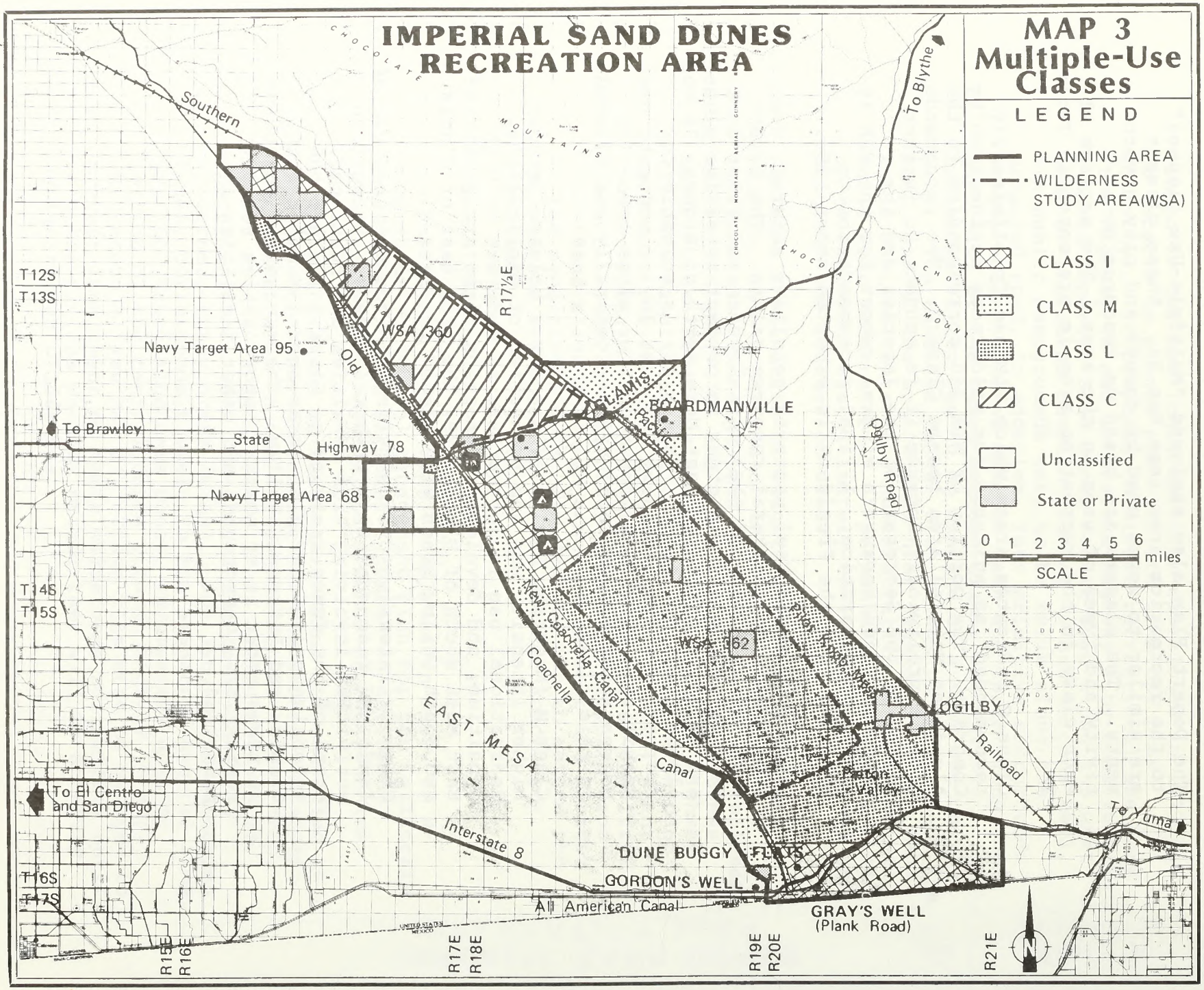
The Desert Plan also assigned "Multiple-Use Classes" to the recreation area (see Map 3). These classes are similar to zones used by county and city governments. The classes are based on resource sensitivity and types of uses in the area. The acreage of each class in the recreation area is presented in Table 1.

Class C indicates areas which BLM has "preliminarily recommended" as suitable for wilderness designation by Congress. The portion of WSA 360 corresponding to the Algodones Natural Area became Class C. The recommendation is preliminary because it is subject to further review by the Secretary of the Interior and the President, and because a mineral report for the WSA is still in preparation. A final recommendation to Congress from the President is expected about 1990.

Class L (Limited Use) protects sensitive natural, scenic, ecological, and cultural resource values. The Desert Plan assigned much of the central dunes and Pilot Knob Mesa to this class, in order to protect sensitive plant and wildlife habitat. East Mesa north of Highway 78 was also placed in Class L. This class is suitable for recreation which generally involves low to moderate user densities. Developed campgrounds or sites involving concentrated recreational use are generally not allowed in this class.

Class M (Moderate Use) provides for a balance between higher intensity use and protection of public lands. Recreational use is appropriate at moderate to high densities, and developed recreation sites are permitted. East Mesa south of Highway 78, the area east of Glamis, and South Ogilby Dunes were placed in Class M.

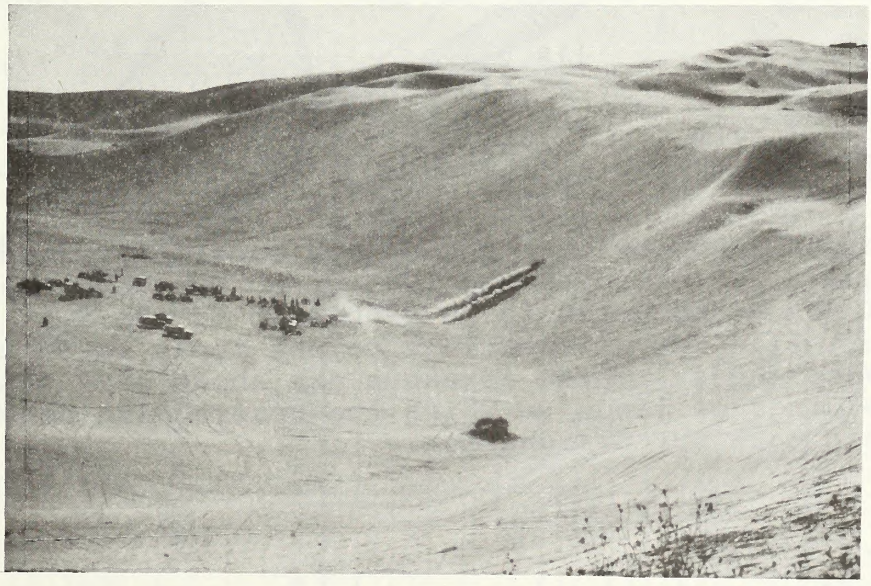
Class I (Intensive Use) provides for concentrated use of lands and resources to meet human needs. Recreation activities involving high densities are permitted. Areas of the dunes assigned to Class I include the intensively-used OHV play areas around Mammoth Wash, Glamis, and Buttercup Valley. The management objective of these areas is to enhance opportunities for OHV recreation. Campgrounds and other facilities are permitted.


IMPERIAL SAND DUNES RECREATION AREA
MAP 3 Multiple-Use Classes
LEGEND
PLANNING AREA
WILDERNESS STUDY AREA(WSA)
CLASS I
CLASS M
CLASS L
CLASS C
Unclassified
State or Private
0 1 2 3 4 5 6 miles
SCALE
Southern Pacific
To Blythe
CHOCOLATE MOUNTAINS
CHOCOLATE MOUNTAIN AERIAL GUNNERY
PICACHO MOUN
T12S
T13S
R17½E
WSA 360
Navy Target Area 95
Old
LAMIS
BOARDMANVILLE
Ogilby Road
To Brawley
State Highway 78
Navy Target Area 68
T14S
T15S
New Coachella Canal
Coachella Canal
WSA 362
Private Property
OGILBY
Railroad
EAST MESA
Canal
Pasture Valley
To El Centro and San Diego
Interstate 8
To Yuma
DUNE BUGGY FLATS
T16S
T17S
GORDON'S WELL
All American Canal
GRAY'S WELL
(Plank Road)
R15E
R16E
R17E
R18E
R19E
R20E
R21E
N

The Desert Plan also designated lands for OHV use (Map 4). The entire dune system except for the Algodones Natural Area and South Ogilby Dunes was designated as "Open." The Algodones Natural Area was designated as "Closed," while South Ogilby Dunes was designated as "Limited to Approved Routes." East Mesa and the area east of Glamis were also designated as "Limited to Approved Routes." East Mesa lands around U. S. Navy bombing target 68 will be redesignated as "Closed" through a pending 1985 Desert Plan Amendment. The acreages of lands in each designation are presented in Table 2.

Lands classified as "L" or "M" are generally designated as "Limited" for OHV use. The exception is in sand dune areas, where all lands are generally designated either "Open" or "Closed" regardless of Multiple-Use Class. This exception to the general rule recognizes the impracticality of identifying individual vehicle routes in the sand dunes.

However, the Desert Plan made two "exceptions to the exception" in the Imperial Sand Dunes Recreation Area: the dunes at South Ogilby became "Limited to Existing Routes," while Pilot Knob Mesa (not a dune area) was designated "Open" Class L for manageability reasons.



The Glamis/Gecko Open Area was assigned to Multiple-Use Class I (Intensive Use) by the Desert Plan.

TABLE 1 DESERT PLAN MULTIPLE-USE CLASSES*

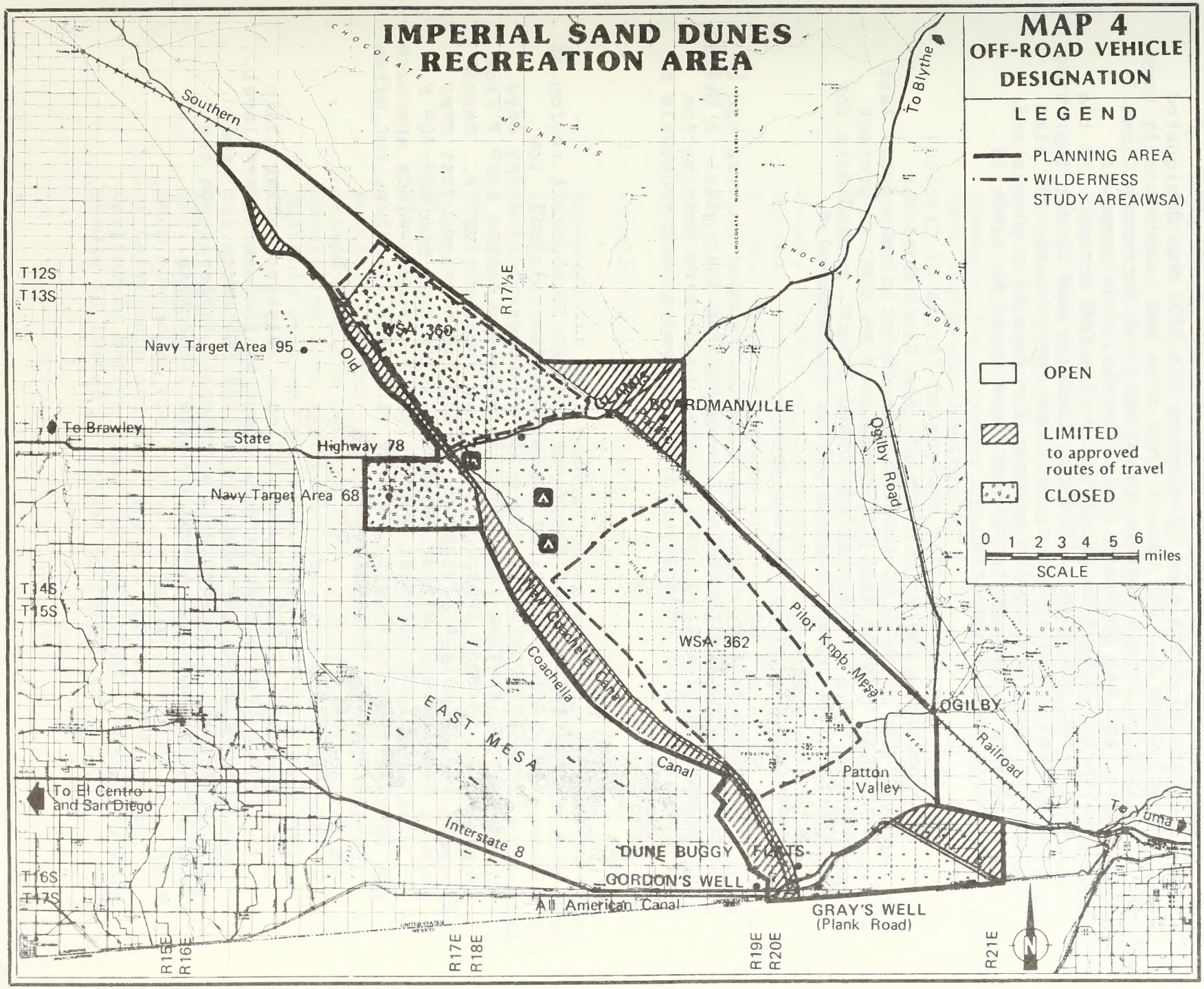
Class	BLM Public Lands (acres)	State and Private Lands Within Each Class*** (acres)
C	22,710	702
L	87,681	2,420
M	29,580	960
I	38,580	5,538
Unclassified	5,760**	640
TOTAL	184,311	10,260

*Acreages incorporate changes from subsequent Desert Plan Amendments, including the U.S. Navy/BLM Amendment of 1985.
**Includes 4,880 acres to be withdrawn to the U.S. Navy.
***Desert Plan multiple-use classes do not apply to State and private lands. These acreages are shown here to indicate inholdings of lands to which the Desert Plan does not apply within each multiple-use class.

TABLE 2 DESERT PLAN OHV DESIGNATIONS[1]

Designation	BLM Public Lands (acres)	State and Private Lands Within Each Designation[3] (acres)
Open	118,261	7,638
Closed	27,510	702
Limited	32,780	1,280
Undesignated	5,760[2]	640
TOTAL	184,311	10,260

1 Acreages incorporate changes from subsequent Desert Plan Amendments, including the 1985 U. S. Navy/BLM Amendment.
2 Includes 4,880 acres to be withdrawn to the U.S. Navy.
3 Desert Plan OHV designations do not apply to State and private lands. These acreages are shown here to indicate inholdings of lands to which the Desert Plan does not apply within each OHV designation.


IMPERIAL SAND DUNES RECREATION AREA
MAP 4
OFF-ROAD VEHICLE DESIGNATION
LEGEND
PLANNING AREA
WILDERNESS STUDY AREA(WSA)
OPEN
LIMITED to approved routes of travel
CLOSED
0 1 2 3 4 5 6 miles
SCALE
Southern
To Blythe
T12S
T13S
R17½E
WSA 360
Navy Target Area 95
Old
To Brawley
State Highway 78
Navy Target Area 68
T14S
T15S
WSA 362
Coachella Canal
EAST MESA
Canal
Pilot Knob Mesa
Ogilby Road
OGILBY
Railroad
Patton Valley
To Yuma
To El Centro and San Diego
Interstate 8
DUNE BUGGY
GORDON'S WELL
All American Canal
GRAY'S WELL
(Plank Road)
T16S
T17S
R15E
R16E
R17E
R18E
R19E
R20E
R21E
N

The central dunes area (including WSA 362) was designated "Open" Class L. OHV use of this area has traditionally been limited to access between the Glamis and Buttercup Class I areas, and has occurred at low levels. The area was designated "Open" to provide for this OHV access. At the same time, the plan called for limiting use by not improving two-wheel drive access or building campgrounds. It also called for a monitoring program for sensitive plants and wildlife so that protective actions could be taken if impacts were documented.

Finally, the Desert Plan designated "Areas of Critical Environmental Concern (ACECs)." The Plank Road was designated an ACEC to protect this historic resource. East Mesa near Gordons Well was designated an ACEC to protect habitat for the flat-tailed horned lizard, a candidate for Federal listing as "threatened" or "endangered."

C. Resources of the Recreation Area

A complete review of resources in the recreation area can be found in the Environmental Assessment for this plan. A brief summary is presented here in order to provide information essential to an understanding of the management proposals of the plan.

1. Climate

The Imperial Sand Dunes are located in a desert region of long, hot summers, mild winters, low rainfall, low relative humidity, and a high percentage of sunny days. Summer daytime temperatures routinely exceed 100° F from June through September, and may approach 120° F. Annual precipitation fluctuates widely but averages just over two inches. Winter daytime highs are in the 60°-70° F range from December through March. Winter winds approach from the northwest. Summer winds are variable, but often blow from the southeast.

2. Topography

The dune system is situated on a relatively flat plain which has an elevation of about 50 feet above sea level. On the west, the plain is called East Mesa (so named because it is east of the Imperial Valley). On the east, the plain is called Pilot Knob Mesa.

The dunes reach heights of 300 feet above the plain, and include classic examples of several different types of dunes. The sands are thought to have originally been beach sands of ancient Lake Cahuilla, which occupied the Imperial Valley at a time when the Colorado River emptied into it instead of the Gulf of California. Unlike some major dune systems which have formed next to a mountain range, the Imperial Dunes have formed here primarily as a result of opposing seasonal winds. Winter winds come from the northwest, but often reverse to the southeast in summer. The stronger winter winds are slowly pushing the dune system southeastward.

The east and west sides of the dune system differ markedly in character. West side sands are composed of material which is generally heavier and coarser than the lighter, finer sands carried further east in the prevailing winds. The coarse sands form the largest, tallest dunes, located in the western two-thirds of the dune system. These constitute the "primary dunes." The tallest dunes are found toward the center of the overall dune mass, in the eastern half of the primary dune area. East of the primary dunes are the "secondary dunes," smaller dunes composed of finer sands and having more vegetation cover.

3. Vegetation and Wildlife

Although the high primary dunes are often viewed as being lifeless, a number of specialized plants and animals have adapted to this unique environment. Constant movement of the sand and lack of water near the surface have produced a relatively sparse vegetation cover, but a number of highly adapted species are, in fact, common. Creosote bush extends into the dunes from the surrounding desert along both the east and west edges of the dune system. Other species, including three plants under status review by the U.S. Fish and Wildlife Service (FWS) for possible designation as "threatened" or "endangered," extend into the central dunes. They have adapted by developing root systems which support them in the unstable sand and penetrate deep to reach water. The three species under FWS review include Pierson's locoweed (Astragalus magdelenae var. Piersonii), silver-leafed dune sunflower (Helianthus niveus ssp. tepharodes), and giant Spanish needle (Palafoxia arida var. gigantea). Pierson's locoweed and silver-leafed dune sunflower are listed as "endangered" by the State of California and as "rare and endangered" by the California Native Plant Society (CNPS). Giant Spanish needle is listed as "rare" by CNPS.

In addition to the three plant species under review by FWS, five additional species are listed as "rare" or "endangered" by either the State of California or CNPS. These include sand food (Ammobroma sonorae), the Borrego milkvetch (Astragalus lentiginosus var. borreganus), Wiggins' croton (Croton wigginsii), ribbed cryptantha (Cryptantha costata), and Coulter's lyrepod (Lyrocarpa Coulteri var. palmeri). Sand food and Wiggins' croton were reviewed by FWS, which found their status did not warrant listing as "threatened" or "endangered." With the exception of ribbed cryptantha and Coulter's lyrepod, the sensitive species are common within the Imperial Dunes, although they are found in few places other than sand dune environments. Ribbed cryptantha and Coulter's lyprepod are each known from only one site in the recreation area (in WSA 360, which is closed to vehicle use). The sand dunes appear to be on the margin of the range of these two species, which occur primarily in other areas.

Most large wildlife species seek the protection of the heavier vegetation along the dune periphery, though such mammals as coyote and mule deer are occasionally seen crossing the dune system. Rabbits, ground squirrels, and a variety of birds, lizards, and insects are seen throughout the dunes.

The secondary dunes are interrupted in places by basins or flats which support stands of trees such as mesquite, smoketree, ironwood, paloverde, and desert willow. These east side basins or pockets are especially common north of Highway 78.

The difference in vegetation between the west and east sides of the dunes is due largely to the amount of water available. Both sides receive very little precipitation. The moisture difference between west and east is largely attributable to the topography of the surrounding lands. North of Highway 78, intermittent streams draining the nearby Chocolate Mountains flow westward to the eastern edge of the dunes, which act like a dam to hold the water. Ponds form in the wooded eastside pockets during the springtime of wet years, supporting a flurry of life.

Mule deer from the Chocolate Mountain population frequent the tree-lined pockets, especially after spring or late summer rains have increased available forage. These deer range from the Chocolate Mountains westward through the dunes and into the neighboring East Mesa area, depending on the availability of water and forage. No formal population studies have been conducted, but California

Department of Fish and Game biologists estimate that 20-25 deer are often present in the area. While deer are less common south of Highway 78, they can be found in vegetated areas along the eastern dune margin.

The fine sands of the secondary dunes provide habitat for the Andrews dune scarab beetle, a species unique to the Imperial Dunes. This insect spends most of its life buried in the sand, emerging on April and May evenings to mate. The beetle is a candidate for FWS listing as a "threatened" or "endangered" species.

The flat-tailed horned lizard occupies the eastern and western margins of the dune system and adjacent flat sandy lands. This species is a candidate for FWS listing as a "threatened" or "endangered" species.

The Colorado Desert fringe-toed lizard is found throughout the dune system. This species, like the Andrews dune scarab beetle and flat-tailed horned lizard, is a candidate species for FWS listing as a "threatened" or "endangered" species.

The desert tortoise is known to occur along the eastern dune margin north of Highway 78. It is listed by BLM as a sensitive species and has been found by FWS to warrant listing as "threatened" or "endangered".

While all of the wildlife species discussed above are known to occur within the recreation area, their relative abundance and distribution are not known with certainty. Baseline studies and monitoring studies are needed to gain a better understanding of their status.

4. Cultural Resources

The dunes contain little evidence of early man's permanent habitation. The dunes were crossed by travelers moving between ancient Lake Cahuilla and the Colorado River. Temporary campsites, often containing roasting pits, broken pottery, and arrowheads are sometimes found along the east and west edges of the dunes.

Historic cemetaries (dating from the period 1880-1930) are located at the railroad townsites of Amos, Glamis, and Ogilby. The Glamis and Ogilby cemetaries are on private property. Except for the cemetaries, which are posted with protective signs, little remains of these townsites.

Remnants of the Plank Road, a single-lane wooden roadway utilized to cross the dunes between 1914 and 1926, can be seen at Grays Well. A fenced section of the road has been established to protect the site.

The dunes are not known to have any special significance for Native Americans.

5. Energy Resources

Two Known Geothermal Resource Areas (KGRAs) underly the recreation area. The Glamis KGRA occupies a corridor along Highway 78, extending up to two miles north and three miles south of the highway. The northern third of the Glamis KGRA is in WSA 360. The Dunes KGRA occupies 16 sections of East Mesa and adjacent dunes in WSA 362. No geothermal leases have been issued. A number of oil and gas leases have been issued, mainly in the Class L area of the central dunes. No development has taken place.

6. Mineral Resources

The principal mineral resources are sand and gravel. The blow sand of the main dune system is occasionally used for fill material. Alluvial sand and gravel deposits east of Glamis are extracted for road base.

D. Recreation Use of the Management Area

1. Use Statistics

During preparation of the Desert Plan, BLM conducted periodic aerial visitor counts of primary camping vehicles to establish use levels. These counts were suspended between 1978 and 1984 for budgetary reasons. A combination of aerial flights and ground counts was conducted in 1984-85 to prepare for the Imperial Sand Dunes Plan. The following data are estimates based on these counts.

Table 3 IMPERIAL SAND DUNES RECREATION AREA
RECREATION VISITS*

AREA	1977	1978	1985
Mammoth Wash	5,300	4,800	5,100
Glamis/Gecko	83,800	107,000	140,200
East of Glamis (Hwy 78)	400	700	4,200
Gordons Well/Ogilby	24,000	12,300	28,600
Buttercup/Plank Road	17,600	25,600	42,700
East Mesa near Dunes	300	700	5,100
TOTAL	131,400	151,000	225,900

*A "recreation visit" is a visit to BLM lands by one person for the purpose of engaging in any recreation activity, whether for a few minutes, full day, or more.

"Recreation Visit" data give an indication of how many times per year people go to the dunes for recreation, but don't give the full picture, because the length of each visit is not indicated. Both the number and length of recreation visits are considered in "Visitor Use Day" (VUD) statistics. A VUD is equal to 12 hours spent in pursuit of recreation by one person.

Table 4 IMPERIAL SAND DUNES RECREATION AREA
VISITOR USE DAYS (VUDs)

AREA	1977	1978	1985
Mammoth Wash	26,000	19,000	19,000
Glamis/Gecko	317,000	380,000	489,000
East of Glamis (Hwy 78)	700	1,700	16,000
Gordons Well/Ogilby	77,000	43,000	100,000*
Buttercup/Plank Road	64,000	86,000	149,000
East Mesa near Dunes	1,000	500	19,000
TOTAL	485,700	530,200	792,000

*Ogilby accounted for 26,000 VUDs of this total in 1985.

Sand Dunes use is heavily oriented toward weekends and holidays, as reflected in the following table:

Table 5 IMPERIAL SAND DUNES RECREATION AREA
DISTRIBUTION OF VISITOR USE DAYS (VUDs)

	1977		1978		1985	
Thanksgiving	117,000	(24%)	107,200	(20%)	230,000	(29%)
3-day Holidays	160,000	(33%)	164,000	(31%)	264,000	(33%)
Non-Holiday Weekends	161,000	(33%)	217,000	(41%)	267,000	(34%)
Weekdays	47,000	(10%)	42,000	(8%)	31,000	(4%)
TOTAL	485,700	(100%)	530,200	(100%)	792,000	(100%)

2. Projected Use of the Recreation Area, 1986-2000

Future use trends are difficult to predict with certainty, but the general trend is unmistakably up. Use increased by 49% overall (5.4% per year average) in the seven years between 1978 and 1985. During the same period, the population of Southern California increased by approximately 15% and the population of Arizona by approximately 35%. While population growth is undoubtedly a major factor, other important factors must also be contributing.

The rise in popularity of small all-terrain vehicles (ATVs) has no doubt been a major factor. Sales of ATVs, which are far less expensive than the average dune buggy, skyrocketed in the early 1980s, bringing a large additional group of visitors to the dunes. Stable to declining gas prices have also no doubt encouraged vehicle-based recreation.

The Southern California Association of Governments predicts population growth between 1984 and 2000 of about 19% for the counties in the association (which includes Ventura, Los Angeles, San Bernardino, Orange, Riverside, and Imperial Counties, but excludes San Diego County). This represents somewhat of a moderation in growth from the period 1978-1985. According to projections by the U.S. Bureau of the Census, the population of Arizona will continue to increase at an undiminished rate, growing 105% between 1980 and 2000. It is more difficult to predict technological changes, trends in gas prices, and changes in public recreational preferences during the period between the present and 2000.

Projected visitation through the year 2000 is presented in Table 6. The projection for each use zone is based on the rate of increase in use of that zone between 1978 and 1985*. As can be seen, the use of undeveloped zones (all except Glamis/Gecko are considered undeveloped) increased at a faster rate than developed use zones. An overall annual rate of increase of about 5% is forecast for the recreation area.

*See exceptions as noted in footnotes to table.

Table 6

ANTICIPATED OHV USE LEVELS AND USE DENSITIES
IMPERIAL SAND DUNES RECREATION AREA (NO ACTION ALTERNATIVE)

Use Zone	1985		1995		2000	
	Projected Average Annual Increase	VUDs	Density (VUD/Acre/Yr.)	VUDs	Density (VUD/Acre/Yr.)	VUDs	Density (VUD/Acre/Yr.)
Mammoth Wash Open Area (11,000 Acres*)	0%	19,000	1.7	19,000	1.7	19,000	1.7
Glamis/Gecko Open Area (22,000 acres)	3.8%	489,000	22.2	720,000	32.7	874,000	39.7
WSA 362/ Central Dunes[1] Class L (65,000 acres)	9%	6,000	0.1	15,000	0.2	25,000	0.4
Ogilby/Pilot Knob Mesa (15,300 acres	9%	26,000	1.7	66,000	4.3	106,000	6.9
Buttercup Valley Open Area[2] (12,500 acres)	5.5%	223,000	17.8	393,000	31.4	521,000	41.7
East of Glamis (Highway 78)[3] (9,300 acres)	10%	16,000	1.7	46,000	4.9	78,000	8.4
East Mesa Near Dunes[4] (29,900 acres)	10%	19,000	0.6	54,000	1.9	91,000	3.1
TOTAL	4.9%	792,000	5.0[5]	1,298,000	8.1[5]	1,689,000	10.6[5]

[1]Central dunes VUDs are not counted in the recreation area total. This is because recreation area visitation is normally figured by counting primary camping units. Little or no camping takes place in the central dunes. Users of the central dunes enter this area from campsites in adjacent use zones, where they have already been counted. Central dunes use figures are estimates.

[2]Use of Buttercup Valley Open Area increased 9% between 1978 and 1985. The rate of increase is expected to drop to approximately 5.5%, because the number of additional available campsites is limited.

[3]Use of the area east of Glamis increased 27.5% per year from 1978 to 1985. The rate of annual increase is high because this area received virtually no use in 1978. The rate of increase is expected to drop to approximately 10%, because the number of additional campsites is limited. The increase in VUDs will primarily be caused by use of this area on more weekends (it is currently used mainly as holiday overflow).

[4]Use of East Mesa near the Dunes increased 40.8% per year from 1978 to 1985. The rate of annual increase is high because the area received virtually no use in 1978. The rate of increase is expected to drop to approximately 10% because a part of East Mesa was closed to camping and vehicle use through a 1985 Desert Plan Amendment, and the availability of additional campsites is limited. The increase in VUDs will primarily be caused by use of this area on more weekends (it is currently used mainly as holiday overflow).

[5]Density is based on 160,000 acres which are avilable for OHV use in the recreation area.

3. Activities and Use Zones

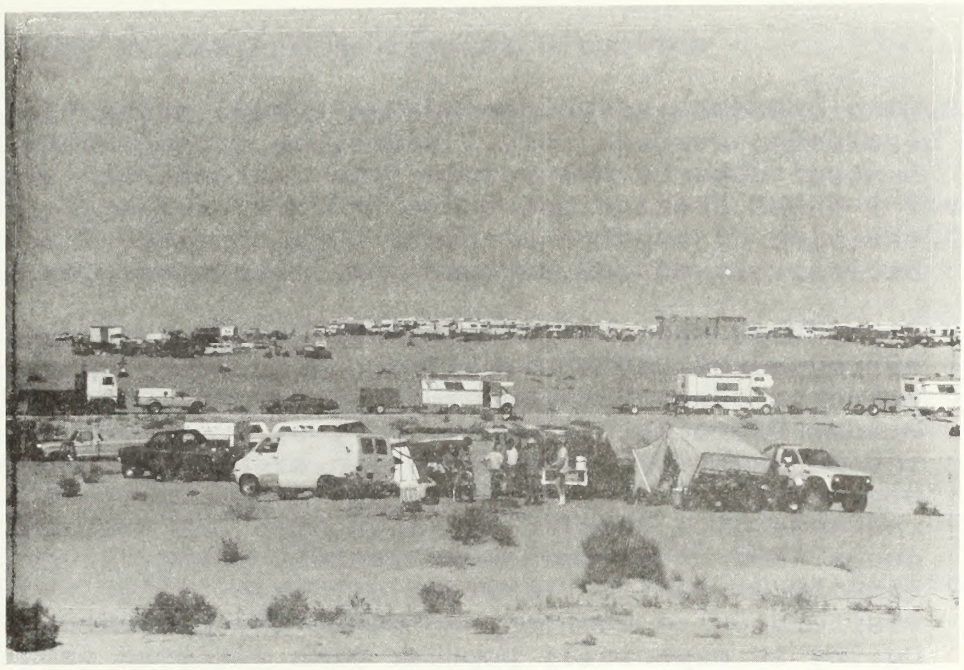
The Imperial Sand Dunes encompass the most intensively visited recreational area in the California Desert Conservation Area, accounting for approximately one-sixth of the conservation area's total recreational VUDs. Use centers around the operation of OHVs, principally dune buggies and ATVs. The most heavily used area is the 22,000-acre Class I area immediately south of Highway 78. Most users know it simply as "Glamis," but this area also includes Osborn Park, Gecko Campground, and the Cahuilla Ranger Station. On a typical 1985 nonholiday winter weekend, approximately 570 camping units (2000 visitors) used this area. On the biggest holiday weekend (Thanksgiving) use of the area grew to over 5,000 camping units (17,500 visitors).

In the past five years as conditions have grown more congested around Glamis, use of lands east of Glamis has risen sharply, especially on major holiday weekends. This land is situated on an alluvial fan extending south from the Chocolate Mountains. Numerous abandoned gravel pits are utilized as camping areas (10 units on an average weekend, 266 on Thanksgiving, 1984).

The 11,000-acre Class I area near Mammoth Wash at the north end of the dunes receives only light to moderate use (7 units on an average weekend, 228 on Thanksgiving, 1984). It is the only major use zone in the recreation area to show a stable use trend over the past seven years. This is largely because access to the area is difficult. The graded Niland-Glamis Road approaches to within about two miles of Mammoth Wash from Glamis, but this is an inconvenient direction for users approaching from the coast. Access from the west involves driving farm and canal roads to reach the wash where it crosses the Coachella Canal.

The Algodones Natural Area (WSA 360) receives light use (estimated at 500 VUD annually). Most use takes the form of short photographic and sightseeing walks from Highway 78, although hiking, backpacking, and nature study trips also occur.

The 65,000-acre central dunes Class L area including WSA 362, but excluding Pilot Knob Mesa (Ogilby) is also lightly used. The exact level of use must be estimated from the levels of adjacent camping areas where central dunes use originates. Based on the results of informal interviews with dunes users conducted by BLM staff in 1985, it is estimated that visitors to the Gordons Well (Dune Buggy Flats) and Ogilby areas spend an average of 1.0 hour per visit riding in the central dunes. Visitors to the



Gecko Campground was originally designed to accommodate 60 camping units. As many as 700 camping units crowd into the facility on busy winter holiday weekends.



On a busy weekend, every patch of ground hard enough to support a motor home is pressed into service for camping space. However, some natural areas of hard ground in Class I are not used because of poor access for camping vehicles.

Glamis/Gecko and Buttercup/Grays Well areas spend an estimated average of 0.2 hours per visit riding in the central dunes. Multiplying the recreation visit data for these areas times these factors produces a 1985 use estimate of about 6,000 VUD. Use consists almost exclusively of OHV day use with little camping use.

Pilot Knob Mesa, which includes Ogilby, received an estimated 26,000 VUD in 1985. Most use occurs at the end of a dirt road (occasionally graded by the U.S. Border Patrol) three miles west of Ogilby townsite near the boundary of WSA 362. On an average winter weekend, approximately 27 camping units (about 95 visitors) use the area as a jumping-off point for OHV trips into the dunes. On major holiday weekends, use averages 75 camping units (260 visitors), though 493 units (1,600 visitors) were counted on Thanksgiving weekend, 1984. Ogilby is especially popular with visitors from Yuma, which is only 20 miles away. Dunes Vista Long-Term Visitor Area (LTVA) is located on a 30-acre site adjacent to the Ogilby Road Interchange on Interstate 8. Camping at this site is limited to holders of an annual Long-Term Visitor Permit, which authorizes the permittee to camp for up to 8 months at the site between October and May. The LTVA receives very little use at this time.

The South Ogilby Dunes area receives very light use, estimated at 1,000 VUD or less per year. Camping units are only very rarely recorded in this area during visitor count flights. However, a non-profit organization does conduct a group ceremony immediately adjacent to the Ogilby freeway interchange on one weekend each year. This event, which includes camping but not the use of OHVs, accounts for about 250 VUD.

The southern 12,000-acre Class I area is usually called the Buttercup Valley Open Area, although it is made up of three distinct subunits. North of Interstate 8 on the west side of the dunes is Gordons Well (Dune Buggy Flats). Directly across the freeway (south) from Dune Buggy Flats is the Grays Well area, at which the Plank Road historical site is located. East of Grays Well, in the heart of the dunes, is Buttercup Valley. These three areas are steadily growing in popularity (270 camping units on an average weekend, 2,228 on Thanksgiving, 1984), despite legal access problems involving the freeway and canal crossings.

4. Current Recreation Management Situation

There are currently no BLM employees assigned exclusively to the Imperial Sand Dunes. The El Centro Resource Area, which includes the dune system and an additional 1 million acres of public land in Imperial and San Diego counties, has a staff of 19. Included in this staff are 4 BLM Rangers and 1 maintenance worker.

One of the Rangers is assigned to a sector which includes the Imperial Sand Dunes and an addditional 200,000 acres of nearby public lands. On major holiday weekends during the use season, the sector Ranger is joined by a second Ranger and a third employee (usually a Recreation Planner) who serves as radio dispatcher at the Cahuilla Ranger Station near Gecko Campground. The Ranger Station is open 8 hours each day during holiday periods (approximately 20 days per year). The Ranger Station is closed at all other times.

Until the 1984-85 season, the Ranger Station was operated 16 hours a day with 24-hour emergency medical assistance during holiday weekends. Service had to be reduced to 8 hours a day in 1984-85 in order to provide needed patrol coverage of the 1 million acres of public lands outside the sand dunes.

The one maintenance worker is responsible for all maintenance of facilities on public lands in Imperial and San Diego Counties. These include two campgrounds and five Long Term Visitor Areas (winter visitor camps) in areas outside the sand dunes. Within the sand dunes, maintenance is restricted to trash removal and sanitation of Gecko Campground and nearby areas along the Imperial Sand Dunes Road. Sand removal from Gecko Campground and the Sand Dunes Road is normally accomplished by contract.

E. Identification of Major Issues

The El Centro Resource Area conducted a series of four public planning workshops on the Imperial Sand Dunes in April 1985. The workshops were announced in a letter sent to 1500 individuals, groups, and government agencies in California and Arizona, and were publicized through the news media.

Attendance was as follows:

El Centro (April 15)	10
Yuma (April 16)	27
San Diego (April 17)	51
Riverside (April 22)	49
TOTAL	137

The objective of the workshops was to identify and prioritize management issues, concerns, and problems relating to the Imperial Sand Dunes. Meeting participants divided into workgroups of 10 to 15 persons each. Through a technique called "brainstorming," workgroup members identified as many issues, problems, and concerns as possible in a one hour period. The objective was to identify as many ideas and issues as possible without taking time to evaluate or criticize the ideas. Following the brainstorming sessions, group members ranked the issues using a numerical scoring method.

Written input was also solicited from those unable to attend the workshops. A total of 42 letters containing written comments on Imperial Sand Dunes management issues were received by April 30, 1985. Of the total responses, 31 came from individuals (23 from California, 8 from Arizona), 7 from organizations (5 from California, 2 from Arizona), and 4 from government agencies (3 from California state agencies, 1 from a Federal agency).

Following analysis of workshop results and the 42 letters on issues, 12 major issue categories were identified. A planning workbook was developed and sent in late May 1985, to all workshop participants and those who sent letters on issues. The purpose of the workbook was to solicit more detailed responses from those who had participated in the initial scoping process, and to seek specific suggestions on actions to resolve the issues.

Following analysis of the 33 workbook responses (26 from individuals, 2 from State agencies, and 5 from organizations), and concerns identified by BLM managers, a final list of 63 major issues requiring resolution was developed.

These 63 issues, organized by the 12 major issue categories, are as follows:

1. Recreation Opportunities

    a. Overcrowding of camping and riding areas.
    b. Short supply of hard surfaced parking areas for camping.
    c. First-come first-served rule should be enforced for camping space.
    d. Need OHV access between Gecko area and Mammoth Wash.
    e. Developement and encouragement of non-OHV recreational opportunities.

2. Safety and Emergency Services

a. Need public safety training/education.
b. Need to relieve congestion (see issue 1a above).
c. Need to enforce safety laws and equipment regulations.
d. Poor visibility of vehicles in the dunes results in collisions.
e. People drive too fast near camping areas.
f. Broken glass is a problem near camping areas.
g. Dangerous highway crossing at Buttercup.
h. Need better emergency services at Buttercup, Mammoth Wash, and when no Ranger is at Cahuilla Ranger Station.
i. Need a coordinated safety plan addressing all types of accidents and how to reduce rates.

3. Resource Protection and Enforcement

a. Need baseline data studies on sensitive wildlife species.
b. Need a monitoring plan for sensitive plant and wildlife species.
c. Need to define impact thresholds and corresponding management response.
d. Need public education on appreciation of sensitive resources.
e. Need to increase patrol and enforcement, especially at Buttercup, Ogilby, Mammoth Wash.
f. Improved enforcement of existing resource protection vehicle closures.
g. Camping and staging is taking place near some sensitive areas.

4. Protection of Wilderness Suitability

a. Public doesn't know where WSAs are.
b. Some users don't understand why wilderness is important or appreciate the need for protection.
c. Public is camping and staging near WSA boundaries.

5. Public Contact and Interpretation

a. Need to emphasize resource protection themes.
b. Need to emphasize safety themes.
c. Need more interpretive signs about the reasons for closures, regulations, and other protection measures.
d. Need more brochures and maps and to improve brochure/map distribution.
e. Need more direct contact between BLM representatives and the public.

6. Facility Development

   a. In concentrated camping areas, more parking, trash receptacles, and toilets are the major needs.
   b. Need toilets, trash service, parking in the south dunes (Buttercup, Grays Well, and Gordons Well).
   c. Need toilets and trash service at camping areas around Glamis.
   d. Need more parking and toilets along the Imperial Sand Dunes (Gecko) Road.
   e. Need toilets, parking, and trash service at Mammoth Wash.
   f. Need sewage dump stations.
   g. Need an OHV access corridor over Interstate 8 and the All-American Canal in the south dunes (Buttercup).
   h. Need better access roads to Buttercup, Gordons Well (Dune Buggy Flats), Mammoth Wash, and campsites around Glamis.
   i. Need pay phones at Buttercup, Cahuilla Ranger Station, and Mammoth Wash.

7. Operations and Maintenance

   a. Need to increase patrol and enforcement hours, particularly at Buttercup.
   b. Need to better maintain existing facilities.
   c. Need to maintain proposed new facilities.
   d. Need to control the litter problem.
   e. Need to identify alternate funding sources.
   f. Need to identify staffing needs.
   g. Need to encourage volunteers for non-hazardous patrol, maintenance, first-aid.
   h. Need to identify functional priorities of the Ranger, Recreation Technician, and Maintenance staffs in order to make most effective use of limited funds.

8. Concessions and Vendors

   a. Need to identify and/or develop appropriate locations for vendors.
   b. Existing sources of goods and services on nearby private lands should be considered in decisions affecting BLM concessions.
   c. Need to develop a list of goods and services which are inappropriate for vending because they conflict with BLM management objectives.
   d. Need to identify needs and services which could be best provided by long-term concession leases.
   e. Need to identify locations for potential leasing for long-term concessions.

9. Acquisition of Legal Access and Undeveloped State and Private Inholdings.

   a. Need legal access to campsites around Glamis, Gordons Well (Dune Buggy Flats), and Mammoth Wash.
   b. Need to acquire inholdings in Class I areas to improve manageability of OHV areas.
   c. Need to acquire inholdings in WSAs and sensitive resource areas in order to protect resources.

10. Compatibility of Land Uses

   The public lands of the recreation area are multiple use and multiple value lands. Management actions are needed to insure compatibility of recreation and non-recreation uses.

   a. Compatibility of recreation and Bureau of Reclamation projects such as lining the All-American Canal.
   b. Compatibility of recreation and Navy uses on cooperative agreement lands near bombing targets.
   c. Compatibility of recreation and sand and gravel extraction operations.
   d. Compatibility of recreation and mining claims/mining operations.
   e. Compatibility of recreation and existing or new powerlines, pipelines, roads, or other uses authorized by right-of-way.
   f. Compatibility of recreation and apiary sites, commercial filming, and other special uses authorized by temporary use permit.
   g. Compatibility of recreation and energy leasing (geothermal and oil and gas).

11. Use Fees

   a. Should a fee be charged for use of the Imperial Sand Dunes in order to defray the costs of development, operations, and maintenance?

12. Potential Desert Plan Amendments

   a. If changes in Desert Plan decisions are identified through the RAMP as being necessary for improved management of the recreation area, Desert Plan amendments must be proposed. Many such potential amendments were proposed by the public during the issue identification process. Included were proposals for basic changes to multiple-use classes, off-highway vehicle designations, and wilderness suitability recommendations.

F. Determination of Issues to Be Resolved in the RAMP

Following identification of major management issues, the issues were analyzed by El Centro Resource Area staff and management. Through this analysis, a determination was made as to which issues were appropriate for resolution in the RAMP, and which must be deferred to other administrative or legislative processes for resolution.

The analysis determined that major Issues 1 through 10 would be addressed by the RAMP. Issue 11, Use Fees, and Issue 12, Potential Desert Plan Amendments will be addressed as follows:

Issue 11, Use Fees

The issues of use fees and funding for recreation programs are two of the major issues facing the President's Commission on Americans Outdoors (PCAO). The PCAO is currently evaluating national policy options in this area, and will be issuing its recommendations in early 1987. Implementation of many of the PCAO recommendations will require subsequent legislative action. The resulting new policies and laws will undoubtedly make important changes to Federal use fee and recreation program funding policy.

BLM enthusiastically supports the concept of use fees to provide for development, operation, and maintenance of recreation areas. However, the likelihood of major upcoming adjustments in Federal fee policy makes development of detailed proposals for the Imperial Sand Dunes premature at this time. The issue of use fees is therefore deferred for resolution as part of a Desert District-wide reassessment of use fee policy to be conducted following issuance of the PCAO Report.

Issue 12, Potential Desert Plan Amendments

Numerous potential Desert Plan amendments were identified by the public at the workshops and in subsequent responses to the planning workbook. Potential amendments addressed four main subject areas:

Multiple-Use Class Changes: The RAMP may make recommendations for class changes as may be necessary to resolve issues identified during the RAMP process. However, the RAMP will assume that no class changes will occur within wilderness study areas until after Congressional resolution of the wilderness designation issue. Any recommended changes outside WSAs would be expected to affect relatively small acreages as necessary to resolve issues on a site-specific basis.

ORV Designation Changes: The RAMP may make recommendations for designation changes as may be necessary to resolve issues identified during the RAMP process.

Wilderness Suitability Recommendation Changes: California BLM policy limits future suitability recommendation amendments to those which may be warranted following completion of mineral reports for recommended suitable WSAs. The RAMP will assume that current suitability/nonsuitability recommendations will remain unchanged.

Management of WSAs Designated as Wilderness or Released for Other Multiple Uses: In the event of wilderness designation, the affected WSA will be managed according to BLM's Wilderness Management Policy and provisions of the enabling legislation. In addition, a Wilderness Management Plan will be prepared following designation. In the event that Congress releases WSA 360 for other multiple uses, it will be reclassified into a new multiple-use class through the Desert Plan amendment process. Management of WSA 362 will remain unchanged in the event of release unless the area is reassigned to a different multiple-use class through the plan amendment process.

Since Congressional action is probably at least five years in the future, it would be premature to make detailed proposals at this time for management following resolution of the wilderness designation question. Therefore, the current RAMP will focus on interim management of the WSAs and will not give detailed consideration to management beyond the point of Congressional action. However, the RAMP will represent a general outline for future management in the event Congress accepts BLM's suitability recommendations.

PART II
Management Objectives and Constraints

PART II - MANAGEMENT OBJECTIVES AND CONSTRAINTS

A. Total Area Management Objectives

The Desert Plan established management guidelines for the multiple-use classes and presented decision rationale for the classification of lands in the Imperial Sand Dunes Recreation Area. However, it did not establish management objectives for the recreation area as a total unit. For this reason, total area management objectives were developed as part of the RAMP process.

Criteria used in developing total area management objectives included Desert Plan decisions from the various Plan Elements, the Multiple-Use Class Guidelines, the decision rationale for planning units 102 (Mesquite-Cargo Muchacho), 103 (Imperial Sand Dunes), and 104 (East Mesa) as contained in Appendix II of the Desert Plan, and the various parameters established by BLM, Departmental policy, and Federal laws. These criteria were utilized in developing the following overall objectives for resolution of the issues to be considered in the RAMP:

1. Provide for a wide range of motorized and nonmotorized recreation opportunities to meet both current and long range recreation needs through 2000 A.D.

2. Accommodate, if demand develops, up to 1.7 million VUDs of recreational use by 2000 A.D. (a 115% increase over 1985 levels).

3. Enhance public safety through a positive program of education, enforcement of safety laws and regulations, and timely emergency response.

4. Provide for systematic monitoring of sensitive biological and cultural resources and recreation use, and development of management guidelines for resource protection.

5. Protect the suitability of wilderness study areas (WSAs) for designation as wilderness, through a systematic program of monitoring and enforcement, and strict adherence to the Bureau's Interim Management Policy (IMP).

6. Develop a low cost interpretive program which emphasizes that all citizens share ownership of the Imperial Sand Dunes and responsibility for what happens to them, and which emphasizes the two major themes of safe vehicle operation and protection of sensitive resources.

7. Implement a limited program of phased facility development which emphasizes improved public access, parking, and sanitation, while minimizing operation and maintenance costs.

8. Insure, through coordinated implementation phasing, that facility development does not exceed BLM's ability to operate and maintain the facilities or monitor sensitive resources.

9. Implement an operation and maintenance program which adequately meets increasing requirements for recreation area administration, patrol, and maintenance of developed facilities, and which does so in a cost-effective manner.

10. Acquire undeveloped parcels of State and private land within the dune system, in order to insure continued availability of recreation opportunities, enhance recreation area manageability, and provide for protection of resources.

11. Acquire legal public access to all major recreation use areas in order to insure continued availability of recreation opportunities.

12. Minimize potential conflicts between recreation use and other resource uses of the recreation area.

B. Multiple-Use Class Objectives

1. Class C - North Algodones Dunes WSA 360 (Algodones Natural Area)

   a. Aggressively enforce the existing vehicle closure.

   b. Enhance nonmotorized recreation opportunities.

   c. Protect wilderness suitability in accordance with BLM's Interim Management Policy.

   d. Monitor and protect the integrity of plant and wildlife habitat.

2. Class L

   a. Provide for a variety of recreation opportunities at low to moderate use densities.

   b. Discourage encroachment of intensive recreation activity from adjacent Class I lands.

c. Manage the Central Dunes (South Algodones Dunes WSA 362) to:

1) Protect wilderness suitability in accordance with BLM's Interim Management Policy.
2) Protect sensitive plant and wildlife species.
3) Provide for both nonmotorized and motorized recreation activities at low use densities.
4) Limit use by refraining from facility or access development.
5) Implement a thorough monitoring program to track recreation use and the condition of sensitive species.

d. Manage Pilot Knob Mesa (including Ogilby) and Class L lands south of WSA 362 to:

1) Provide for both motorized and nonmotorized dispersed-site recreation opportunities at generally low to moderate use densities.
2) Protect sensitive plant, wildlife, and cultural resources.
3) Implement a thorough monitoring program to track recreation use and the condition of sensitive species.

e. Manage the north Coachella Canal corridor (area north of Highway 78 between the old and new Coachella canals) to:

1) Provide north-south OHV access on approved routes.
2) Protect wildlife habitat.

f. Manage lands surrounding Navy Target 68 to:

1) Provide for Navy operational needs.
2) Promote public safety.
3) Protect wildlife habitat.

NOTE: These lands are at present assigned to Class M. They will be reassigned to Class L through a 1985 Desert Plan Amendment concerning Navy operations in Imperial County.

3. Class M

a. Provide a variety of recreation opportunities at moderate to high use densities.

b. Manage the south Coachella Canal corridor (area south of Highway 78 between the old and new Coachella canals) and Class M lands near Gordons Well to:

1) Provide vehicle access on approved routes.
2) Provide dispersed-site camping opportunities.
3) Protect wildlife habitat within the Southern East Mesa ACEC.
4) Minimize potential conflicts between recreation use and energy development.

c. Manage lands east of Glamis along Highway 78 to:

1) Provide safe vehicle access on existing routes between these lands and the dunes near Glamis.
2) Provide dispersed-site camping opportunities.
3) Minimize potential conflicts between recreation use and development of mineral and energy resources.

d. Manage the South Ogilby Dunes (lands south of Interstate 8 and east of the All-American Canal) to provide for generally low levels of dispersed site camping and OHV use.

4. Class I

a. Provide for continuation and enhancement of traditional OHV recreation opportunities.

b. Provide for safe use at moderate to high densities.

c. Relieve occasional congestion and overcrowding by dispersing use throughout available Class I lands.

d. Relieve litter and sanitation problems.

e. Improve emergency communication between recreation area users and BLM or other emergency services agencies.

f. Develop a concession and vendor program which:

1) Meets identified public needs for goods and services.
2) Enhances enjoyment of the recreation area.
3) Supports recreation area management objectives.
4) Reduces BLM operation and maintenance costs.

C. Management Constraints

1. California Desert Plan

The RAMP must be prepared within the general framework established by the Desert Plan. See the "Previous Planning" section on p. 4 and the discussion of potential Desert Plan amendments on p.26.

2. Other Activity Plans

The Desert Plan directed completion of a Plank Road ACEC Management Plan (completed in 1985) and Imperial Sand Dunes Habitat Management Plan (scheduled for completion in 1987). In addition, two completed wildlife plans affect a small part of the RAMP area. These are the East Mesa Habitat Management Plan and Southern East Mesa ACEC Plan. Consistency between plans is essential.

3. Authorized Uses Other Than Recreation

a. Bureau of Reclamation (BR) Withdrawals

While most BR-withdrawn lands have been relinquished within the recreation area boundary, some of the lands around the U.S. Navy East Mesa Target Area and between the old and new Coachella canals remain withdrawn. Under terms of a 1978 agreement, BLM has recreation management responsibility for these lands but must obtain BR concurrence on all management actions. In addition, BR retains a withdrawal on the rights-of-way of the new Coachella Canal and All-American Canal (1,000 feet on either side of the canal centerline). These rights-of-way are not covered by the 1978 agreement. All BLM management programs initiated within the canal rights-of-way must be approved by BR. BR programs are the paramount use on all BR-withdrawn lands. The most significant BR program potentially affecting the recreation area in the near future is the proposal to construct a new concrete-lined All-American Canal. In the recreation area, this new canal would be constructed immediately adjacent to the present canal on the north side.

b. U.S. Navy/BLM Cooperative Agreement

The U.S. Navy and BLM have developed a Cooperative Agreement for management of public lands in range safety zones surrounding Navy Targets 68 and 95 on

East Mesa. A Desert Plan amendment necessary to implement the agreement was proposed in 1985 and is nearing approval. The amendment will close East Mesa lands between Target 68 and the old Coachella Canal to OHV use. Under terms of the Cooperative Agreement, the Navy will review all proposed management actions within Range Safety Zone C (which includes the Gecko area and much of WSA 360) to insure consistency with structural height restrictions and other guidelines to safeguard aircraft operations near the targets.

c. Sand and Gravel Sales Applications

All sand and gravel sales activity in the recreation area is found on the Glamis-Boardmanville Class M lands. Free-use and sales permits have been issued for sites in Sections 19, 22, 23, 24, 26, 27, and 34, T. 13 S., R. 18 E., SBM. Sections 22, 23, and 24 are withdrawn from mineral entry for the purpose of facilitating sand and gravel extraction.

d. Geothermal Leases

The Glamis and Dunes Known Geothermal Resource Areas (KGRAs) are for the most part situated within the recreation area. However, industry interest in the KGRAs appears to be minimal, since no applications have been filed. BLM prepared an EA for geothermal leasing in the recreation area in 1981. The resulting decision of the California State Director was that the north half of the dunes system (Mammoth Wash Open Area, WSA 360, and the Glamis/Gecko Open Area) be closed to all geothermal leasing. The dunes south of the Glamis/Gecko Open Area would be open to leasing subject to a no surface occupancy stipulation. All areas outside the dunes proper would be open to leasing with appropriate mitigations.

e. Oil and Gas Leases

A number of oil and gas leases have been issued for southern WSA 360, the Glamis/Gecko Open Area, and WSA 362. A moratorium on further leasing is in effect in the WSAs. No development has occurred on any of the leases.

f. Mining Claims

All mining claims in the RAMP area are located within the Glamis-Boardmanville Class M lands in Sections 19, 21, 25, 26, 27, and 28, T. 13 S., R. 18 E., SBM and in the Pilot Knob Mesa area. No mineral extraction has occurred in these areas, and no recreation conflicts are foreseen.

g. Utility and Transportation Rights-of-Way

Two major transportation rights-of-way (State Highway 78 and Interstate Highway 8) cross the recreation area in an east-west direction. The Southern Pacific Railroad right-of-way forms much of the east boundary of the area. Approximately eight miles of the railroad right-of-way in the Glamis area is included within the RAMP area. The only major existing utility corridor within the recreation area passes through the Buttercup Valley Open Area parallel to Interstate 8. Existing facilities include a 500 kV transmission line and a number of smaller power and telephone lines. Powerlines also parallel the new Coachella Canal and Southern Pacific Railroad. A high-pressure gas pipeline is also located within the railroad right-of-way. A microwave relay tower was recently authorized and erected on public lands west of Ogilby. A current right-of-way project proposal involves a buried telephone line along Highway 78.

h. Apiary Sites

Temporary use permits have been issued for numerous apiary sites along both the old and new Coachella canals.

4. Wilderness Interim Management Constraints

WSA 360 and WSA 362 must be managed according to BLM's Interim Management Policy until Congress either designates them as wilderness or releases them for other types of multiple-use management. This precludes any uses or developments which would impair wilderness suitability.

PART III
The Management Program

PART III - THE MANAGEMENT PROGRAM

Note: All actions are prioritized by funding level. These levels are not alternatives. They are all proposed, depending on funding available and actual trends in recreational demand, use levels, and resource condition during the life of the plan. Final decisions to proceed with Level 4 and 5 facility development and concession leasing proposals will be especially dependent on actual use trends and resource conditions in the mid-1990s as determined through the monitoring study program. An important feature of the plan is that facility development at any particular level will not occur unless the staffing, resource protection, and maintenance funding for the same level is available.

Level 1: Reduced management capability (reduced funding level). This will result in a steady decline in visitor services, emergency medical assistance, facility maintenance, and resource monitoring and enforcement capabilities as use levels increase.

Present Management: Present funding for management is at a level between Level 1 and Level 2. If present funding is maintained, the level of services and enforcement capabilities will decline as use levels increase, but at a more gradual rate than under Level 1. Management problems will become acute by the mid-1990s. Because the RAMP details management actions to resolve those problems, present management is not carried through the plan as a funding level. It is, however, described in Chapter 2 of the Environmental Assessment as Alternative 2 - No Action (page EA-14).

Level 2: Maintain present management capability. This requires an increased level of funding in order to cope with increased use levels. Includes resolution of legal access to the Glamis and Buttercup Valley areas, improved trash service in the Glamis/Gecko area and establishment of trash service in the Buttercup/Gordons Well area.

Level 3: Modest improvement in management capability. Includes resolution of legal access to Gordons Well and installation of toilets in the Glamis, Buttercup, and Gordons Well areas.

Level 4: Significant improvement in management capability. This is the funding level required to attain optimum distribution of recreational use within available Class I areas to alleviate safety and overcrowding problems anticipated in the mid-1990's, while improving resource protection. Level 4 includes resolution of legal access to Mammoth Wash.

Level 5: This is the funding level required to develop full OHV access within the Buttercup Valley Open Area (OHV crossing of I-8 and the All-American Canal), and maintain the highest level of resource protection.

Management prescriptions are presented according to the management issues they help to resolve. With the exception of those Level 1 actions which are noted as representing a reduction in current management levels, management prescriptions are additive from one level to the next (i.e., Level 1 prescriptions apply to Level 2, etc.).

Table 7. GENERAL IMPLEMENTATION SCHEDULE

Funding Level	Implementation to be completed by the end of:
Level 1	(At time of funding cuts)
Level 2	1989
Level 3	1993
Level 4	1996
Level 5	1999

MANAGEMENT PRESCRIPTIONS

Issue 1 - Recreation Opportunities

Management Prescription	Issues Resolved
Level 1	
1-1. Enforce no parking rule on maintained roadways.	1a, 2b

Discussion: Parking space is at a premium in the dunes. In the past, visitors parked directly in the traffic lanes of paved roads, creating congestion and safety hazards. Recreation area rules now require that vehicles be parked with all tires off the paved road surface on BLM roads.

1-2. Do not permit organized event start/finish/pit/staging areas along the Imperial Sand Dunes (Gecko) Road during the major use season (November 1-April 30). 1a, 2b

Discussion: Because camping space is at a premium and congestion is a problem along this road, priority is given to individual recreational users rather than organized events which tend to aggravate the problem.

1-3. Permit organized events at Glamis. Require that start/finish/pit/staging areas be flagged and roped-off to prevent inadvertent public entry. 1a, 2b

Discussion: The natural flat hard-surfaced pockets on the east side of the dunes provide camping space in relative abundance in the Glamis area. While camping space is not in as short supply as in the Gecko area, congestion and resulting safety problems do occur. These are effectively reduced when staging area boundaries are delineated.

1-4. Enhance non-OHV opportunities on a portion of the dunes system by enforcing the existing Algodones Natural Area vehicle closure. 1e

Level 2

1-5. In conjunction with the access and site development programs, disperse use to available Class I areas by posting directional signs to alternative campsites/use areas. 1a, 2b

Discussion: Most congestion problems are the result of limited parking availability. BLM policy is to reduce congestion by developing additional parking facilities and improving access to existing hard-surfaced areas, thereby encouraging dispersal of camping use throughout available Class I areas. Directional signs will assist first-time visitors and visitors arriving at night in finding campsites.

1-6. Map all available camping areas in the recreation area brochure. 1a, 2b

Discussion: See discussion for 1-5 above.

1-7. Post and enforce the existing "first-come first-served" rule which prohibits roping off of campsites.

Discussion: California Desert District policy for use of recreational facilities has been "first-come first-served" for many years. In the past, BLM Rangers in the dunes took action to remove ropes and other barriers only if a complaint was received from a visitor who was denied access. However, the problem has grown dramatically in recent years, with some visitors roping off half or more of an 800 foot parking pad. The number of complaints has also risen sharply as a result of such abuses. The "first-come first-served" rule will therefore be posted and enforced uniformly throughout the dunes.

1-8. Retain the current OHV designation of South Ogilby Dunes as "Limited to Existing Routes." 12a

Discussion: The draft RAMP proposed redesignation of this area as "Open" to OHV use, through amendment of the Desert Plan. Because of the presence of sensitive resources and concerns expressed by

other agencies and the public during the comment period on the draft, the proposal to redesignate the area has been deleted. Resource conditions will be carefully monitored through the baseline study and monitoring program beginning at Level 2.

1-9. Through a Desert Plan Amendment, reclassify Sec. 6, T. 12 S., R. 16 E., SBM, from "Unclassified" to "Class L" west of the Coachella Canal and "Class I" east of the Coachella Canal. 1a, 2b, 12a

Discussion: This section is located on the north side of Mammoth Wash, and is composed of sandy creosote bush flats. The portion east of the Coachella Canal is used as a camping area for users of the Mammoth Wash Open Area. Designation of the area as Class I will recognize existing use and will permit development of recreational facilities at Level 4 (prescriptions 6-34 through 6-38 and 8-10). Designation of lands west of the Coachella Canal as Class L is consistent with the designation of adjacent East Mesa lands.

1-10. Through a Desert Plan Amendment, redesignate Sec. 6, T. 12 S., R. 16 E., SBM, from "Undesignated" to "Limited" for OHV use west of the Coachella Canal and "Open" for OHV use east of the Coachella Canal. 1a, 1b 12a

Discussion: See discussion for prescription 1-9.

1-11. Provide information on hiking and other non-OHV opportunities in the recreation area brochure. 1e

Discussion: This is in response to a growing number of requests for information concerning non-OHV opportunities. Information will highlight visits to the

Algodones Natural Area north of Highway 78 and other opportunities in low use areas of the dunes.

Level 3

1-12. Post and develop a vehicle corridor along the old Coachella Canal to provide an OHV link between the Mammoth Wash, Glamis/Gecko, and Buttercup Valley areas. 1d

Discussion: There has been demand for an access corridor between Mammoth Wash and the Glamis/Gecko area since closure of the corridor through the Algodones Natural Area in 1977 (OHV use of the new Coachella Canal road and Niland-Glamis County road is illegal). In addition, the California OHV Recreational Trails Plan identified three third-priority trail corridors converging on Glamis from the north (Desert Center), east (Gold Basin), and south (Buttercup Valley).

The Coachella Canal corridor on the western margin of the Imperial Sand Dunes is the most appropriate location for trail segments around the Algodones Natural Area (WSA 360) and the central dunes Class L area (WSA 362). Availability of the canal corridor as an OHV corridor would reduce closure violations in WSA 360 and divert some "through traffic" around WSA 362, where the management objective is to maintain a low level of OHV use. The corridor will be established by signing existing routes alongside or within the abandoned old Coachella Canal, or between the old and new Coachella Canals. The southernmost terminus of the trail corridor will be at Grays Well, following implementation of prescriptions 6-32 and 6-33 (freeway and canal overpasses).

Linkage of the Coachella Canal corridor segment with Glamis will be via the sand highway along Highway 78, or another alignment through the Glamis/ Gecko Open Area as may be established in the future. Implementation of the State OHV trail corridors extending north and east from the Imperial Sand Dunes will require additional study to determine feasible routes.

1-13. Post and develop a hiker/equestrian trailhead along the Niland-Glamis Road north of Glamis. 1e

Discussion: The trailhead will consist of a cleared and leveled 100 x 100 foot parking area situated between the Niland-Glamis Road and Southern Pacific Railroad. A visitor information board and register will be provided; BLM Rangers will patrol the site on a regular basis during the use season. The trailhead parking area will be closed to overnight camping.

Issue 2 - Safety/Emergency Services/Visitor Protection

Management Prescription	Issues Resolved
Level 1	
2-1. Continue to require BLM Rangers to obtain Emergency Medical Technician (EMT) training.	2h
Discussion: This is an existing requirement.	
2-2. Station BLM EMT personnel at Cahuilla Ranger Station as funds permit.	2h
Discussion: At the present level of funding, the ranger station is open and staffed with EMT personnel on major holiday weekends (approximately 20 days per year). However, because of	

funding limitations and the need to patrol other public lands in the El Centro Resource Area, the hours of Ranger Station operation were reduced from 16 hours per day (with personnel available all night on an emergency basis) to eight hours per day on some holiday weekends in 1985 and 1986. Although every effort will be made to continue this service, it will no doubt become more difficult to maintain if the BLM budget sustains anticipated reductions.

If further reductions occur, BLM will first reduce the number of weekends the station is operated and then, as a last resort, discontinue ranger station operation. The County Sheriff is unable to assume operation of the station, because of County funding limitations. The net effect of Cahuilla Ranger Station closure on holiday weekends would be a significant deterioration of the existing emergency response capability within the recreation area.

2-3. BLM Rangers enforce State and Federal safety and equipment laws and requirements as time permits. 2c

Discussion: BLM Rangers enforce safety and equipment laws, but limited patrol time must first be allocated to the requirements of resource protection and emergency medical response. Accident prevention through equipment compliance checks will be done on an "as-available" basis under Level 1 funding.

2-4. BLM Rangers enforce State and Federal laws requiring vehicles and drivers to be licensed for highway use on all State, County, and BLM-maintained roads in the recreation area. 2c, 2e

Discussion: This is the current situation. However, with reduced funding at Level 1, enforcement of these safety laws and rules will be done on an "as available" basis after essential resource protection and emergency medical responses have been made.

Level 2

In addition to the prescriptions listed here, see also prescriptions 7-12, 7-13, 7-14, and 7-32.

2-5. BLM will co-sponsor ATV/desert safety workshops with the Imperial Dunes Patrol and other organizations. 2a

Discussion: Co-sponsored workshops will cover all aspects of desert safety, including ATV operation, desert survival, hazardous wildlife species, unexploded military ordnance, and other safety topics.

2-6. Enforce safety and vehicle equipment requirements at all organized events under BLM permit. 2c

Discussion: This is current BLM policy. Monitoring to insure compliance will occur at 100% of authorized events.

2-7. Set up periodic checkpoints to check OHVs for Green Stickers and required safety equipment. 2c

Discussion: Checkpoints will be periodically established to check OHVs as they are brought into the recreation area at the beginning of the weekend or holiday period.

2-8. Enhance visibility of OHVs in the dunes by establishing a supplementary rule requiring flexible whip masts equipped with flags, consistent with rules for 2d

State Vehicular Recreation Areas. Use of lighted whip masts at night will be encouraged, though not required.

2-9. Post signs at all major camping areas informing OHV users of the whip mast requirement. 2d

2-10. Enforce the whip mast requirement. 2d

Discussion: Enforcement will occur at checkpoints periodically established at entry points into the recreation area and as time permits during Ranger patrols. See prescription 7-11 for Ranger functional priorities.

2-11. Establish a 15 mph speed limit on the sand highways which parallel Highway 78 and the Imperial Sand Dunes (Gecko) Road, and other sand highway segments near zones of user concentration. 2e

Discussion: State law establishes the 15 mph speed limit near all dwellings or occupied sites. Prescriptions 2-11 through 2-14 apply this existing law to major zones of user concentration.

2-12. Establish a 15 mph speed limit on the dirt access road paralleling the railroad south of Glamis. 2e

2-13. Post 15 mph signs a) along the sand highways, b) the dirt road south of Glamis, and, c) in all areas of concentrated camping use. 2e

2-14. Enforce the 15 mph speed limit in the areas detailed in prescriptions 2-11 through 2-13. 2e

2-15. After the beginning of regular maintenance on the dirt road south of Glamis (see prescription 6-12), post the maintained segment as limited to 2e

vehicles and drivers licensed for highway use. Establish an OHV corridor parallel to the maintained road on the west side.

Discussion: The maintained section will be considered a "highway" under State law. Segregation of large RVs and OHVs will eliminate safety problems caused by use of the same road by both types of vehicles, and reduce maintenance costs by limiting development of "whoop-de-dos" on the road.

2-16. Establish a supplementary rule prohibiting use of glass beverage containers in the recreation area. 2f

Discussion: The rule should slow the alarming increase in broken glass in major camping areas. The rule is restricted to beverage containers in recognition of the fact that these are the type of containers most often discarded in the dunes, and also because many other types of food products are not readily available in containers other than glass.

2-17. Post signs informing the public of the "no glass beverage bottle" rule at all concentrated camping use areas. 2f

2-18. Coordinate with the California Department of Transportation (Caltrans) and the California Highway Patrol to reduce dangerous OHV crossings of Interstate 8 at Buttercup. 2g

Discussion: In the short term, actions will include removal of the Sand Hills Rest Area (approximately 1990) and placement of special barriers in problem areas. Long term resolution of the problem involves establishing an OHV overcrossing of Interstate 8 (prescriptions 6-32 and 6-33).

2-19. Station BLM EMT/Recreation personnel at Cahuilla Ranger Station during every weekend and holiday period between November 1 and Memorial Day (approximately 80 days per year). 2h

Discussion: See related prescriptions 7-12 and 7-14.

2-20. Develop a coordinated interagency safety plan with the Imperial County Sheriff's office, the California Highway Patrol, equipment manufacturers, user organizations, and ambulance services, with the dual aim of accident prevention and coordinated emergency response when accidents occur. 2i

Discussion: This plan will direct and focus the overall effort to reduce accidents in the dunes. It will recognize that no single agency or group can, by itself, resolve the accident problem. User organizations and manufacturers will concentrate on accident prevention through public education. Ambulance services and law enforcement agencies will work to further improve excellent cooperation that already exists in the area of emergency response.

Level 3

See prescriptions 6-6, 6-25, 7-15, 7-16, 7-34.

2-21. Install numbered orientation posts along existing sand highways and proposed OHV corridors, in Class I areas. 2h

Discussion: It is easy to become disoriented in the dunes because of a lack of recognizable landmarks. Visitors often have a difficult time describing the location of accidents or other incidents to enforcement or emergency personnel. Numbered posts placed approximately every 1,000 feet

have proved highly successful as orientation aides at Pismo Beach SVRA, and it is anticipated that they will work equally well at the Imperial Dunes.

Level 4

See prescriptions 6-38, 7-17, 7-18, and 7-35.

Issue 3 - Resource Protection

Management Prescriptions	Issues Resolved
Level 1	
See also prescriptions 7-1, 7-2, and 7-11.	
3-1. The Ogilby campsite will remain open for public use, but no site development actions which would encourage public use will be undertaken.	3g, 4c
Discussion: This is in keeping with Desert Plan guidelines for Class L. Use of the site is currently at the low to moderate level specified by Class L guidelines. Monthly monitoring of the adjacent WSA indicates that impairment of wilderness suitability is not occurring at the present use level. Use of this site and resulting impacts will be monitored. If, through future monitoring, it is determined that use is creating impacts inconsistent with Class L and WSA IMP guidelines, appropriate actions will be taken to restrict use of the site. At Level 1 (reduced funding), both resource and recreational use monitoring will be largely limited to periodic patrols by BLM Rangers. If funding declines to the point where the site can no longer be effectively patrolled, BLM could be forced to close it.	

Enforcement of the closure would, however, be difficult at Level 1 because it would require a greater Ranger presence than that required to monitor use.

3-2. In accordance with Desert Plan multiple-use class guidelines, allow no organized vehicle event start/finish/staging/pit areas in Class L. 3g, 4c

Discussion: This precludes use of Ogilby and all other Class L areas for these purposes, which tend to attract concentrations of users inconsistent with Class L.

3-3. In accordance with Desert Plan multiple-use class guidelines, consider organized vehicle events in Class L only after carefully analyzing the possible impacts to sensitive resources through an environmental assessment prepared for the specific event. Although Class L in the dunes is designated "Open," proposed competitive event courses must still be carefully delineated, evaluated through an environmental assessment, and approved for use in order to avoid sensitive plant and wildlife habitat. 3, 4

Discussion: This is consistent with Class L guidelines. No events have taken place in the Class L portion of the dunes since 1979. Because of the high level of public interest and controversy surrounding the Class L portion of the dunes, and because much of the Class L area is in a WSA status, public notification and review of the environmental assessment for proposed competitive events would be mandatory. This would necessitate an event application date much earlier than the usual 120 days prior to the proposed event date, in order to allow environmental analysis of the proposed course, and to permit public

review. The actual application date would be determined in part by the course proposed and amount of Class L involved.

Since significant detailed environmental studies of proposed courses would be required, applicants would be required to reimburse BLM for the cost of the environmental assessment with no guarantee that the event would be approved. At Level 1, consideration of an event would also be heavily dependent on the availability of BLM staff to administer the application process and conduct the necessary studies and compliance checks.

3-4. Post areas closed to vehicles with a maximum interval between signs of 1/4 mile (1,320 feet). 3f, 4c

Discussion: This is the current maximum interval. The interval is less in heavy-use areas.

Level 2

See also prescriptions 7-3 and 7-4.

3-5. Post additional signs along the boundaries of areas closed to vehicles in order to reduce the maximum interval between signs to 1/8 mile (660 feet). 3f, 4c

3-6. Implement the Plank Road Area of Critical Environmental Concern (ACEC) Management Plan. 3d, 3e, 3f, 3g

Discussion: This plan, completed in 1985, proposes a number of measures to protect and interpret the historic Plank Road. Measures include fencing, partial restoration of a road segment, interpretive signs, a brochure, periodic photo monitoring, patrol and other actions.

3-7. Prepare an Imperial Sand Dunes Habitat Management Plan (HMP) in FY 1987 in order to coordinate sensitive plant and wildlife baseline data studies and monitoring programs. The HMP will also establish procedures for defining impact thresholds based on the results of baseline data studies, and for determining protective management actions as may be needed in response to the results of monitoring studies. 3a, 3b, 3c

Discussion: The baseline data study and monitoring programs outlined in the following management prescriptions will (with the exception of cultural resources studies) be implemented in conjunction with the HMP. The Bureau made a commitment to closely monitor the effects of recreational use of the Class L portion of the dunes when the decision was made to designate Class L as "Open" for OHV use.

Since 1980, the central dunes have been monitored with periodic Ranger patrols as well as recreation and wilderness monitoring overflights. These efforts have confirmed that use occurs at very low levels in the central dunes and that wilderness suitability has not been impaired by the use that has occurred. The proposed studies will enhance the existing monitoring effort by providing data from which the status of individual sensitive species can be more accurately assessed.

Appendix A identifies specific RAMP management prescriptions which will not be implemented until baseline studies have been completed and a program of monitoring studies is under way. This will allow the status of sensitive species and potential impacts to be more accurately assessed prior to final decisions to implement those prescriptions.

3-8. Initiate Level 2 baseline data studies as listed in Appendix A. 3a

Discussion: Level 2 baseline data studies concentrate on the secondary dunes and eastern margin of the dunes in WSA 362, as well as the adjacent Pilot Knob Mesa area. The eastern side of the dune system represents the prime habitat for deer, Andrews dune scarab beetle, and flat-tailed horned lizard. Fringe-toed lizard surveys will be conducted throughout the Class L portion of the dunes. WSA 362 and the Class L area will receive this early emphasis because this is the area of greatest potential conflict between recreational use and sensitive resources. By gathering baseline data in this area during Level 2, a monitoring program can be in place by the time site developments occur at Buttercup Valley, Grays Well, and Gordons Well during Level 3. Appendix A lists the specific development projects which will require completion of these baseline studies prior to implementation. Cultural inventories will not be done within the dune system because of the general lack of cultural resources.

3-9. Initiate Level 2 monitoring studies as listed in Appendix A. 3b

Discussion: Level 2 resource monitoring studies also concentrate on WSA 362 and Class L. Whereas Level 2 baseline data studies are directed toward wildlife, Level 2 monitoring is directed primarily toward plant species, for which baseline data is already available (from the 1977 study).

Data from monitoring studies detailed in prescriptions 3-9, 3-10, and 3-11 (as well as from studies conducted at higher funding levels) will be considered in an annual review of resource condition and recreation use patterns. The FWS and DFG will be invited to participate in these reviews.

If ongoing monitoring studies determine that significant adverse effects are in fact occurring, appropriate protective measures will be taken. The nature of protective measures would depend on the nature and degree of impacts as determined through the studies. Possible measures could include erection of fenced exclosures, restriction of overnight use of Class L lands to discourage camping and staging, or closure of a portion or all of these lands. Before closures will be implemented, every effort will be made to develop adequate protection measures short of any large-scale closure.

3-10. Monitor recreational use throughout the dunes system through a program of visitor count overflights to be conducted every three years. 3b

Discussion: Visitor count overflights are the most accurate way to monitor recreational use in this large recreation area with numerous access points, but aerial counts are costly. To gather statistically significant data, approximately 26 flights per year are required. A program of flights is therefore proposed for every third year, augmented in the intervening years with traffic counter monitoring.

3-11. Install traffic counters on: a) the Imperial Sand Dunes (Gecko) road, b) the Grays Well (Buttercup) Road, c) the dirt access road to the Ogilby campsite, d) the dirt access road paralleling the railroad south of Glamis, and e) the Gordons Well access road. 3b

Discussion: These counter locations represent the primary access points to the recreation area. By obtaining both flight and counter data the first year, the counters can be calibrated to the actual count information obtained from the

flights. Subsequent flight data every third year will serve to identify shifts in use patterns, while the counters will provide information only on use levels (numbers).

3-12. Monitor traffic counters once a month. 3b

Level 3

See also prescriptions 7-5 and 7-6.

3-13. Initiate Level 3 baseline data studies as listed in Appendix A. 3a

Discussion: Level 3 baseline data studies concentrate on WSA 360 (the Algodones Natural Area). Once again, species to be studied are primarily wildlife species, since plant data is already available.

Desert tortoise, mule deer, fringe-toed lizard, and Andrews dune scarab beetle will be emphasized. These Level 3 studies will provide the baseline for monitoring during Level 4, when development of the Mammoth Wash area is proposed.

3-14. Initiate Level 3 monitoring studies as listed in Appendix A. 3b

Discussion: Level 3 monitoring studies represent a continuation and expansion of the sensitive plant monitoring program begun at Level 2 and the beginning of on-going monitoring of wildlife species in WSA 362 and Class L, utilizing the base-line data developed at Level 2.

3-15. Post additional signs along the boundaries of areas closed to vehicles in order to reduce the maximum interval between signs to 300 feet. 3f, 3g, 4c

Level 4

See also prescriptions 7-7 and 7-8.

3-16. Maintain monitoring studies listed for Level 4 in Appendix A. — 3b

Discussion: By Level 4, all baseline studies will have been completed, and a full monitoring program will be implemented throughout the recreation area.

3-17. Install a traffic counter on the newly constructed Montgomery Road extension to Mammoth Wash. — 3b

Discussion: This expands the program begun with prescription 3-11.

Level 5

See also prescriptions 7-9 and 7-10.

3-18. Maintain monitoring studies listed for Level 5 in Appendix A. — 3b

Discussion: Level 5 monitoring studies represent the continuation of the program fully implemented at Level 4.

Issue 4 - Protection of Wilderness Suitability

Management Prescriptions	Issues Resolved

Level 1

See also prescriptions 7-1, 7-2, and 7-11.

4-1. Evaluate all proposed management actions within or near WSAs to insure compliance with Section 603 of FLPMA and BLM's Interim Management Policy and Guidelines for Lands Under Wilderness Review (IMP). — 4

Discussion: This is current policy. All proposed management actions within or near WSAs must be evaluated to determine if the action will meet the "nonimpairment criteria," specified in Appendix B.

4-2. Continue BLM Ranger patrols of WSAs to monitor and enforce use restrictions. 4

Discussion: In conformance with National BLM policy, WSAs are monitored on a monthly (or more frequent) basis. WSA 360, which is adjacent to the zones of highest user concentration, is monitored on a weekly basis. Protection of wilderness suitability is a BLM priority; funding for Ranger patrols is the highest priority and will continue, even in the event of Level 1 funding reductions (see prescription 7-11). Whenever possible, WSA monitoring overflights will be conducted to supplement and assist surface patrols.

Level 2

See also prescriptions 5-4, 5-6, 7-3, and 7-4.

4-3. Incorporate a message about wilderness resources and the need for their protection in the sensitive resources interpretive signs to be installed at Osborn Park and Roadrunner Campground (See 5-6). 4a

Discussion: These signs will make the public more aware of the location of WSAs, especially WSA 362, and will explain the need for special care to protect suitability.

4-4. Show WSA boundaries on the map in the recreation area brochure. 4a

Discussion: See discussion for prescription 4-3.

4-5. Install a barricade at the southern terminus of the former OHV corridor through the Algodones Natural Area (WSA 360) in order to reduce closure violations. 3f, 4c

4-6. Install a fence or barricade along one mile of the boundary of the Algodones Natural Area (WSA 360) near Glamis in order to reduce closure violations. 3f, 4c

Discussion: Closure violations are a particular problem along the Class I - Class C boundary north of Highway 78 west of Glamis. These Class I lands are intensively used as a camping and OHV staging area. Although the boundary is well signed, a physical barrier is necessary to effectively end closure violations.

Level 3

See also prescriptions 5-15, 5-16, 7-5, 7-6.

4-7. Incorporate a message about wilderness resources and the need for their protection in the sensitive resource interpretive signs to be installed south of Glamis and at Dune Buggy Flats (See 5-16).

Level 4

See prescriptions 7-7 and 7-8.

Level 5

See prescriptions 7-9 and 7-10.

Issue 5 - Public Contact and Interpretation

Management Prescription	Issues Resolved
Level 1	
5-1. Reprint the recreation area brochure as needed.	5d
5-2. Distribute the recreation area brochure, manufacturer's equipment safety brochures, and other available informational materials that convey pertinent resource protection and safety themes, through BLM Rangers, the BLM maintenance worker, and at Cahuilla Ranger Station.	5d
Level 2	
5-3. Emphasize resource protection and safety themes in all interpretive programs. Discussion: These are the two major interpretive themes identified through the public workshops and workbook responses, as well as by BLM management.	5a, 5b
5-4. Establish the Osborn Park lookout as an interpretive site. Discussion: The Osborn Park lookout affords the best view of the dune system accessible to two-wheel drive vehicles. Visitors to the site can see many miles in every direction, into the Algodones Natural Area (WSA 360) to the north, the Glamis/Gecko Open Area to the south, west beyond the dune system to the East Mesa, and east to the Chocolate Mountains, Cargo Muchacho Mountains, and Picacho Peak. It is a logical point for the development of interpretive signs with a wide variety of themes. See also related prescription 9-2.	2a, 3d, 5a, 5b, 5c
5-5. Following completion of alternate camping facilities at Roadrunner Campground, convert the Osborn Park parking area to a day-use facility.	1a, 1e, 3f, 3g

Discussion: Because of the shortage of camping space in the recreation area, the Osborn Park lookout is frequently so crowded with campers that day users and highway travelers are unable to use the scenic viewpoint. Closure of the Osborn parking lot to camping will make the interpretive site available to all segments of the public. This action, combined with construction of Roadrunner Campground and grading of the access road to campsites south of Glamis, is consistent with the longstanding BLM policy of redistributing camping use away from the Algodones Natural Area and Highway 78, and into the Class I area.

5-6. Install interpretive signs dealing with the theme of sensitive resources and the need for their protection at: a) the Old Plank Road, b) near the boundary of WSA 360 at Osborn Park, and c) near the boundary of WSA 362 at Roadrunner Campground. 3d,4b, 5a

Discussion: Interpretive signs require periodic maintenance and protection from vandalism. Installation of signs and other interpretive facilities at each funding level is tied to BLM's ability to protect and maintain them. Signs will be added in other areas as this ability improves in those areas (see prescriptions 5-16 through 5-21).

5-7. Install interpretive signs emphasizing safe OHV operation at: a) Roadrunner Campground, b) Gecko Campground. 2a, 5b

5-8. Install brochure boxes at: a) Gecko Campground, b) Roadrunner Campground, and c) Osborn Park. 5d

5-9. Install an interpretive sign incorporating the theme of multiple-use management of public lands at Osborn Park. 5

5-10. Update the recreation area brochure at the time of republication to incorporate the various needed changes (i.e., show WSA boundaries on map, etc.) as identified in other parts of this plan. 5d

5-11. Keep the Cahuilla Ranger Station open every winter weekend between November 1 and Memorial Day to provide brochures, maps, and an opportunity to ask questions directly to a BLM employee. 5e

Discussion: See related prescriptions 2-19, 7-12, and 7-14.

5-12. Improve brochure distribution throughout the dunes by utilizing the volunteer Dunes Patrol and new BLM Recreation Technicians to distribute brochures at campsites. 5d

Discussion: See related prescriptions 7-12, 7-14, and 7-32.

5-13. BLM Recreation Technicians and volunteer Dunes Patrol members will place a special emphasis on taking time to visit with users at their campsites in order to both provide information and to keep in touch with user needs and concerns. 5e

5-14. BLM Recreation Technicians will each present a minimum of three special evening programs per year in the Gecko, Glamis, or Buttercup areas. 5e

Discussion: Special evening programs afford an opportunity to discuss important topics more fully than can occur in day-to-day contact. If the programs are successful during the trial season, the schedule will be expanded to include more programs as time permits.

Level 3

See also prescriptions 7-15 and 7-34.

5-15. Develop a brochure which deals with the sensitive plant and wildlife resources of the dunes, the need for their protection, and things the individual dunes user can do to help in the protection effort while enjoying the dunes. 5d

5-16. Install interpretive signs dealing with the theme of sensitive resources and the need for their protection: a) near the boundary of WSA 362 on the graded dirt road south of Glamis, and b) in the Dune Buggy Flats (Gordons Well) area. 3d, 4b, 5a

Discussion: See discussion for prescription 5-6.

5-17. Install interpretive signs emphasizing safe OHV operation at: a) camp areas south and west of Glamis, b) Buttercup Valley, c) Grays Well (Plank Road), and d) Dune Buggy Flats. 2a, 5b

Discussion: See discussion for prescription 5-6.

5-18. Install brochure boxes at a) the camp area west of Glamis, b) the camp areas south of Glamis, c) Buttercup Valley, d) Grays Well, and e) Gordons Well. 5d

Level 4

See also prescriptions for 7-17 and 7-35.

5-19. Install a brochure box at the Mammoth Wash campsite. 5d

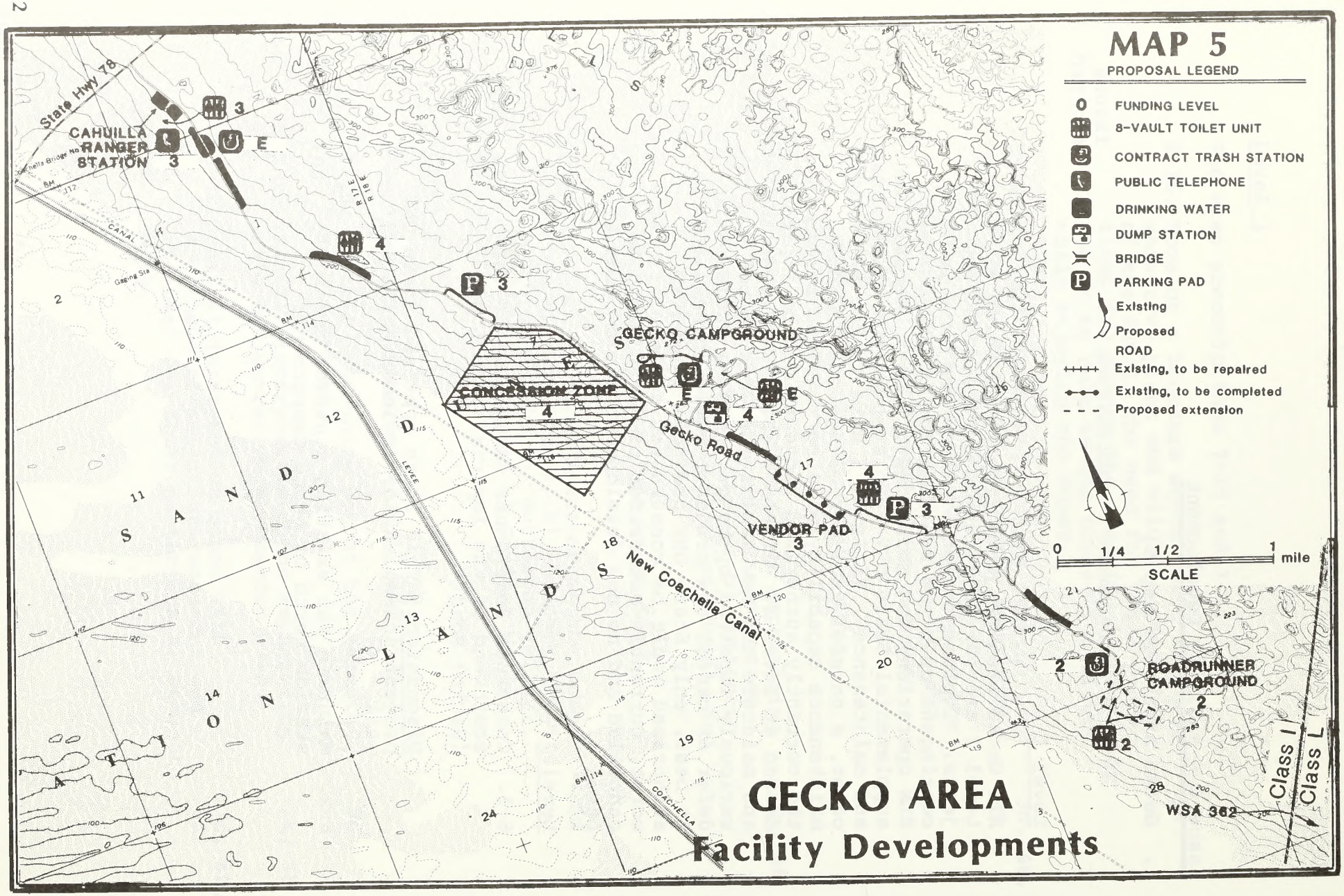
5-20. Install interpretive signs emphasizing safe OHV operation at Mammoth Wash. 2a, 5b

5-21. Install interpretive signs with the theme of sensitive resources and the need for their protection at Mammoth Wash. 3d, 4b, 5a

Issue 6 - Facility Development

1. Gecko Area (See Map 5)

Management Prescriptions	Issues Resolved
Level 1	
All Gecko area projects prescribed below at Level 2 are currently approved State OHV projects. Implementation of these projects is contingent upon the continuation of the current BLM operations and maintenance budget, as well as supplemental State OHV Fund support for operations and maintenance. If Level 1 cuts to the BLM budget occur, a careful analysis of operations and maintenance capability will be required before the currently authorized projects can be implemented at Level 1. If BLM's ability to operate and maintain the new facilities were to be seriously impaired by budget cuts, a decision to defer or cancel the projects would be required. At best, only State OHV projects currently authorized would be constructed at Level 1. At worst, currently authorized projects would be cancelled and no new development would occur at Level 1.	
Level 2	
6-1. Construct Roadrunner Campground at the south end of the Imperial Sand Dunes (Gecko) Road. Discussion: This is an approved State OHV project scheduled for implementation in 1988.	1a, 1b, 6d
6-2. Maintain the existing contract trash station north of Gecko Campground.	6a, 7d


MAP 5
PROPOSAL LEGEND
FUNDING LEVEL
8-VAULT TOILET UNIT
CONTRACT TRASH STATION
PUBLIC TELEPHONE
DRINKING WATER
DUMP STATION
BRIDGE
PARKING PAD
Existing
Proposed
ROAD
Existing, to be repaired
Existing, to be completed
Proposed extension
0 1/4 1/2 1 mile
SCALE
State Hwy 78
CAHUILLA RANGER STATION
GECKO CAMPGROUND
CONCESSION ZONE
Gecko Road
VENDOR PAD
New Coachella Canal
ROADRUNNER CAMPGROUND
WSA 362
Class I
Class L
SAND
LANDS
GECKO AREA
Facility Developments

Discussion: This is a State OHV project approved through the 1988-89 season. Contract trash stations consist of a 40-cubic yard transfer container (supplemented with a second 40-cubic yard container on high-use weekends) and an access ramp to allow the public to deposit trash into the 8-foot high containers. These facilities are placed in a short-term parking area with appropriate identifying signs. The containers are emptied weekly by a contractor and removed during the summer off season. The large containers placed at a central point are a low-cost alternative to many small containers at many locations.

6-3. Enlarge the Cahuilla Ranger Station compound to incorporate: a) a storage building for Dunes Patrol ATVs and other equipment, and b) parking space and utility hookups for two trailers (each up to 10 feet by 50 feet), one to be used as a residence for BLM EMT/Recreation Technicians, the other to be provided by Dunes Patrol members for Dunes Patrol use. 2h, 7g

Discussion: This is an approved State OHV project scheduled for implementation in 1988. See related prescriptions 2-19, 5-11, 5-12, 5-13, 5-14, 7-12, and 7-32.

6-4. Pave the public parking area at Cahuilla Ranger Station. 6a, 6d

Discussion: This is an approved State OHV project scheduled for implementation in 1988.

Level 3

6-5. Add a second public restroom at the Cahuilla Ranger Station parking lot. 6a, 6d

Discussion: A single-vault public restroom was installed at the parking lot in 1986. It has become popular with the many OHV riders who pass by the station. A second restroom will eventually be necessary to handle the volume. While many dunes users camp in self-contained RVs, restrooms such as this one are needed for the thousands of persons who have need of facilities while riding at some distance from their base camp. With anticipated use increases, a significant sanitation problem will be created if adequate toilet capacity is not provided.

6-6. Install a public telephone at the Cahuilla Ranger Station parking lot. 2h, 6i

Discussion: This is needed to improve emergency response at times when the Ranger Station is closed. Although the station will be open every winter weekend beginning with the 1987-88 season, there will be occasional periods (notably late at night or on weekdays) when the facility is closed. The phone will be a vital link with emergency services at such times. The nearest phone line is seven miles from the station. Implementation phasing will depend in part on projected installation of a new buried phone line along Highway 78, expected about 1987 or 1988.

6-7. Construct approximately 100,000 square feet of additional gravel camping pads along the Imperial Sand Dunes (Gecko) Road. 1a, 1b, 2b, 6d

Discussion: Two new pads, each 50 feet by 1000 feet are proposed, one north and one south of Gecko Campground.

6-8. Construct a 50,000 square-foot vendor pad on the west side of the Imperial Sand Dunes (Gecko) Road between Gecko and Roadrunner Campgrounds. 8a

Discussion: Most vendor activity to date has been in the Glamis area, where adequate natural hard surfaced area is available. However, the primary need for vendor services is in the Gecko/Roadrunner area since food and supplies are already available from private businesses at or near Glamis. The new vendor pad will allow vendors to set up shop in the Gecko/Roadrunner area without displacing campers from available parking, which is in short supply. Revenue generated from vendor permits will be utilized to defray the cost of construction. See related prescriptions 8-1, 8-2, and 8-5.

Level 4

6-9. Construct two additional 8-vault toilet units along the Imperial Sand Dunes (Gecko) Road. 6d

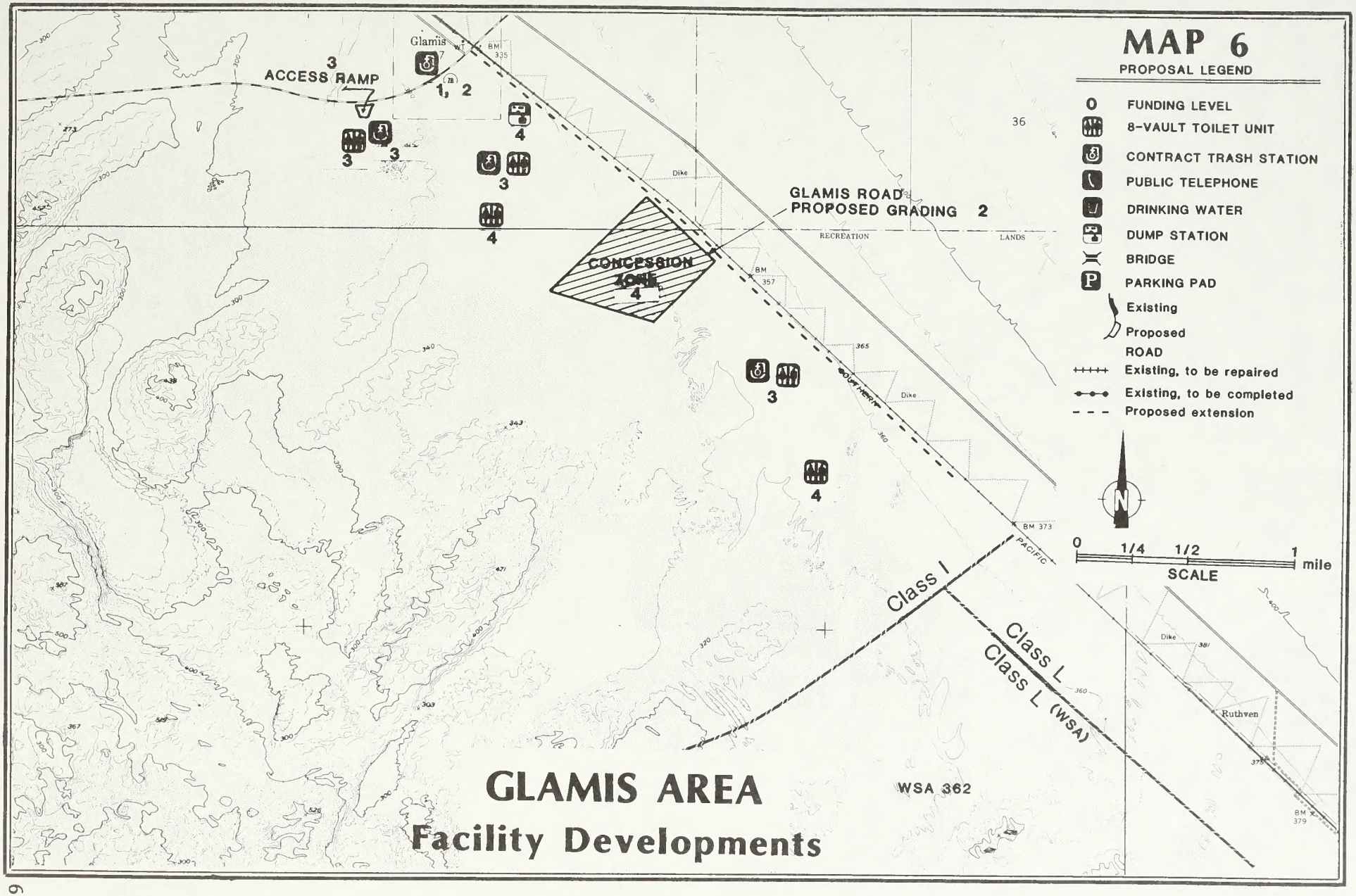
Discussion: These and other new toilet units called for in this plan will utilize the design, color, and architectural style of the existing 8-vault units at Gecko Campground. One will be installed approximately two miles north of Gecko Campground, the other about a mile south, near existing parking pads.

6-10. Construct a four-bay sanitary dump station along the Imperial Sand Dunes (Gecko) Road. 6f

Discussion: This facility will be located near Gecko Campground. It will either be constructed and maintained by BLM or by a concessioner. See related prescription 8-8.

2. Glamis Area (See Map 6)

Management Prescriptions	Issues Resolved
Level 2	
6-11. Maintain the existing contract trash station near the Glamis Store.	6a, 6c
Discussion: This is an approved State OHV project. This station is located across Highway 78 from the Glamis Store. It began operation in the 1985-86 season. Funds have been approved through the 1988-89 season.	
6-12. Improve (widen and grade twice annually) three miles of the dirt railroad maintenance road south of Glamis.	6h, 7b
Discussion: This road, which parallels the railroad on the west side, provides access to the major campsites in Class I south of Glamis. It is very rough from years of heavy use and no maintenance. The road is on private property and railroad right-of-way. See related prescriptions 2-12, 2-13, 2-15, and 9-1.	
Level 3	
6-13. Construct two 8-vault "Gecko-style" toilet units in major camping areas south of Glamis.	6c
Discussion: These will be located in the natural hard-surfaced pockets accessible from the road maintained in prescription 6-12.	
6-14. Construct an access ramp from Highway 78 to the major camping area west of Glamis.	6h


MAP 6
PROPOSAL LEGEND
0 FUNDING LEVEL
8-VAULT TOILET UNIT
CONTRACT TRASH STATION
PUBLIC TELEPHONE
DRINKING WATER
DUMP STATION
BRIDGE
P PARKING PAD
Existing
Proposed
ROAD
Existing, to be repaired
Existing, to be completed
Proposed extension
N
0 1/4 1/2 1 mile
SCALE
3 ACCESS RAMP
1, 2
GLAMIS ROAD PROPOSED GRADING 2
CONCESSION ZONE 4
RECREATION LANDS
Glamis
Dike
Class I
Class L
Class L (WSA)
WSA 362
Ruthven
GLAMIS AREA
Facility Developments

Discussion: Access to this site west of the sand drag strip is currently across private property at the Glamis Store. Construction of a ramp from Highway 78 directly into the area will provide more convenient legal access and reduce safety problems caused by RVs and OHVs sharing the bumpy access route along the north side of the sand drag strip.

6-15. Construct one 8-vault toilet unit in the major camping area west of Glamis. 6c

Discussion: This will be located in the flat just west of the sand drag strip.

6-16. Relocate the existing contract Glamis trash station from the Glamis Store to the major camping area west of Glamis. 6c

Discussion: The central station at Glamis will become inadequate to handle the volume of trash by 1990. This move, combined with establishment of two new stations south of Glamis (6-17) will bring the stations to the sources of trash on public lands. It will be made possible by the new access ramp, which will allow trash trucks to reach the site.

6-17. Establish two additional contract trash stations at major camping areas south of Glamis. 6c

Discussion: See discussion for 6-16. Grading of the access road (6-12) will make possible delivery of trash containers to the sites.

Level 4

6-18. Construct two additional 8-vault toilet units in the Glamis area. 6c

Discussion: With anticipated increases in use by the mid-1990s, additional toilets will be needed. Development of a concession campground (8-9) might reduce or eliminate the need for construction of these facilities by BLM.

6-19. Construct a four-bay sanitary dump station in the Glamis area. 6f

Discussion: Again, development of a concession campground (8-9) might eliminate the need for construction of these facilities by BLM.

3. **Buttercup Area (See Map 7)**

NOTE: The California Department of Transportation (CalTrans) will construct a new Sand Hills Interchange just east of the current Sand Hills Freeway Rest Area in 1989 (late Level 2). This will be a complete overpass interchange permitting access to the recreation area from both directions. The existing "one-sided" Grays Well Road exits will be removed at that time.

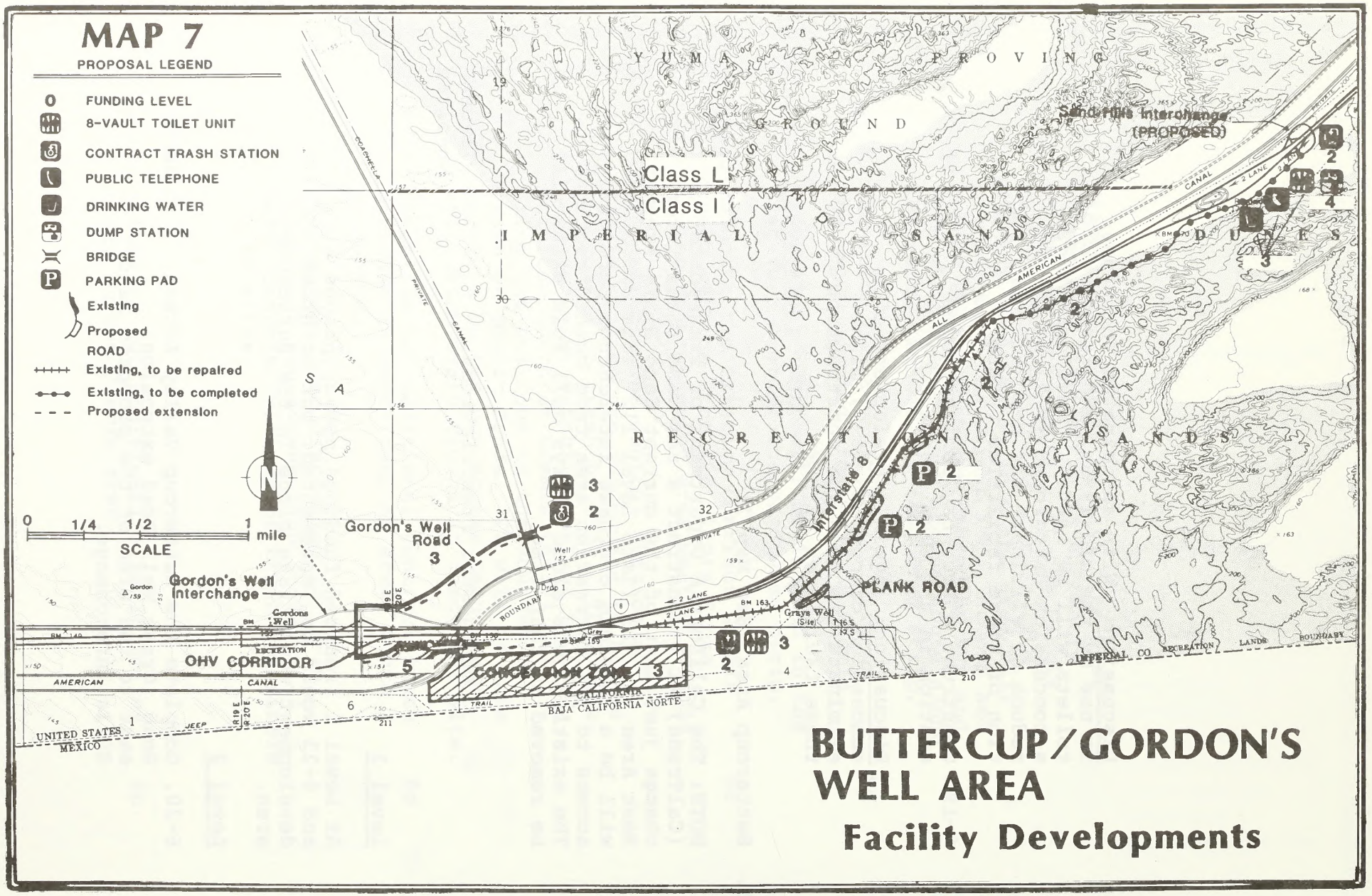
Management Prescriptions	Issues Resolved

Level 1

At Level 1 (reduced funding) prescriptions 6-20 and 6-23 would be implemented, but no other development would take place in the Buttercup area.

Level 2

6-20. Complete the Buttercup Valley Access Road (Grays Well Road extension) east to the site of the proposed Sand Hills Interchange. 6h



BUTTERCUP/GORDON'S WELL AREA

Facility Developments

Discussion: This is an approved State OHV project scheduled for implementation in 1988. The road was constructed with a temporary gravel surface in 1986. Completion will involve some additional grading and embankment work and paving the road. The finished road will permit public access to the Plank Road area from the new Sand Hills Interchange.

6-21. Repair the existing Grays Well Road. 6h

Discussion: This work involves rebuilding road shoulders and repaving the existing Grays Well Road in the Plank Road area. The road is in an advanced state of deterioration. An application for State OHV funds to accomplish this work was turned down by the State in 1985.

6-22. Construct approximately 100,000 square feet of new gravel camping pads on the south side of the Grays Well Road. 1a, 1b, 2b, 6b

Discussion: These pads will be constructed at various locations along the Grays Well Road in the dunes east of the Plank Road interpretive site. An application for State OHV funds to accomplish this work was turned down by the State in 1985.

6-23. Establish contract trash stations at: a) Buttercup Valley, b) Grays Well, and c) Gordons Well (Dune Buggy Flats). 6b, 7d

Discussion: These are approved State OHV projects with funding for two years beginning with the 1987-88 season.

Level 3

6-24. Pipe drinking water from the well at the Sand Hills Rest Area under Interstate Highway 8 to the Buttercup camping area. 6b

Discussion: The Sand Hills Rest Area, which is located in the freeway median at Buttercup Valley, will be removed by Caltrans in the late 1980s in order to reduce safety hazards caused by recreational users crossing the freeway on OHVs to access the facilities. This prescription as well as 6-25 and 6-26 will serve to move the facilities at the rest area to the south side of the freeway where they will be directly accessible to campers.

6-25. Install a public telephone at the Buttercup camping area south of Interstate 8. — 2h, 6i

Discussion: See the discussion for 6-24. The telephone is an important communication link between sand dunes users and emergency medical and law enforcement services.

6-26. Construct an 8-vault toilet unit at the Buttercup camping area south of Interstate 8. — 6b

Discussion: See discussion for 6-24.

6-27. Construct an 8-vault toilet unit at the Grays Well (Plank Road) camping area. — 6b

Discussion: This will be located in the vicinity of Grays Well Road and the Plank Road interpretive site, and will serve both area campers and day-use visitors to the Plank Road.

6-28. Construct a new 1/2 mile paved access road and bridge over the Coachella Canal to provide access from the Gordons Well Interchange to the Dune Buggy Flats area. — 1a, 2b, 6g, 6h

Discussion: The existing gravel road and bridge are property of the Imperial Irrigation District and the Coachella Valley Water District, respectively.

Although the road and bridge have been left open since 1981, they are posted "No Trespassing." For liability reasons, the water districts will not grant BLM an access easement using these facilities. The existing road and bridge could be closed at any time. The new bridge will be wider and safer than the narrow water district bridge, and will provide a separate lane for OHV traffic (see 6-31, 6-32, and 6-33).

6-29. Construct an 8-vault toilet unit at the Dune Buggy Flats (Gordons Well) camping area. 6b

Discussion: This toilet unit will be located east of the Coachella Canal near the center of Dune Buggy Flats. This facility can be developed only after legal access has been acquired (see prescriptions 6-28 and 9-5).

Level 4

6-30. Construct a four-bay sanitary dump station in the Buttercup area. 6f

Discussion: Development of a concession facility at Grays Well (prescription 8-7) may eliminate the need for BLM to develop this facility.

Level 5

6-31. Extend Grays Well Road west one mile to the Gordons Well Interchange, constructing a new bridge over the All-American Canal. 6g, 6h

Discussion: This bridge and road will complete development of access to the Buttercup and Grays Well areas. With completion of this project, the Grays

Well Road will be linked to the freeway at both ends with full overpass interchanges allowing traffic to access the freeway in either direction at either end of the road. This will especially improve access for users coming from San Diego and El Centro, who will no longer have to drive east to the Sand Hills Interchange in order to go back to Grays Well. This bridge will also incorporate a lane to allow OHV access across the All-American Canal.

6-32. Establish the Gordons Well overpass as a "designated segment" for OHV use under Section 38026 of the California Vehicle Code. 6g

Discussion: Designation of the Gordons Well overpass as a designated segment will allow establishment of an OHV access corridor from Grays Well to Dune Buggy Flats without construction of a separate OHV overpass over Interstate 8, thereby saving about $1 million. Special signing will be required to direct OHV users and to alert drivers of highway-legal vehicles to the presence of OHVs on the overpass. Under terms of the designated segments law, only drivers licensed for highway driving and operating OHVs with appropriate lights, registration, and equipment could legally use the overpass.

6-33. Designate an OHV access corridor between the Grays Well (Plank Road) and Dune Buggy Flats areas, utilizing the Grays Well Road bridge over the All American Canal (6-31), the Gordons Well Overpass (6-32), and the Coachella Canal Bridge providing access to Dune Buggy Flats (6-28). 6g

Discussion: A number of possible routes for an OHV access corridor over Interstate 8 and the All-American Canal were considered (see the route analysis in Appendix C). The selected route meets the following criteria:

a. It links Class I with Class I, and avoids Class L.

b. It is the most cost-effective alternative, because it uses bridges which serve more than one function.

c. It provides a safe alternative to at-grade crossings of Interstate 8 and OHV use of freeway canal bridges.

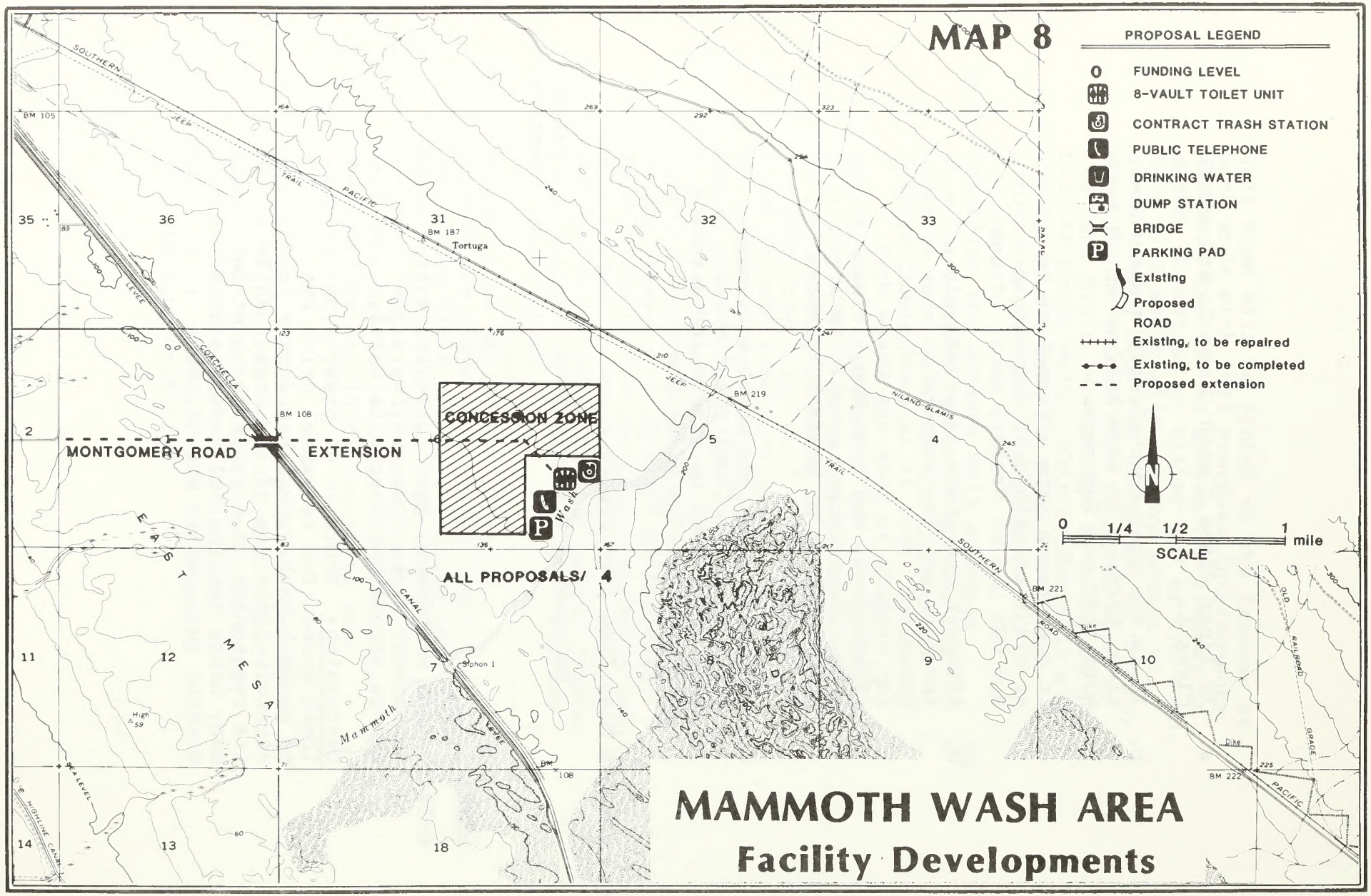
d. Although the route is relatively inconvenient for campers in the Buttercup area, it is convenient for campers in both the Grays Well (Plank Road) and Dune Buggy Flats area, who together constitute a larger number of users than those at Buttercup.

e. The route links the north and south areas near the focal point which will be created by concession development west of the Plank Road (prescription 8-7).

4. Mammoth Wash Area (See Map 8)

Management Prescriptions	Issues Resolved
Level 4	
6-34. Extend Montgomery Road 2.7 miles east to Mammoth Wash, constructing a new bridge across the Coachella Canal.	6h

Discussion: There is at present no legal access for two-wheel drive RVs to Mammoth Wash. This has served to severely limit use of the area. While its remoteness is a positive point for many users seeking solitude, it does prevent full public use of the


MAP 8
PROPOSAL LEGEND
FUNDING LEVEL
8-VAULT TOILET UNIT
CONTRACT TRASH STATION
PUBLIC TELEPHONE
DRINKING WATER
DUMP STATION
BRIDGE
PARKING PAD
Existing
Proposed
ROAD
Existing, to be repaired
Existing, to be completed
Proposed extension
CONCESSION ZONE
MONTGOMERY ROAD
EXTENSION
ALL PROPOSALS/ 4
SCALE
0 1/4 1/2 1 mile
MAMMOTH WASH AREA
Facility Developments

Mammoth Wash Open Area. By the mid-1990s, increasing demand for riding areas will require BLM to look for alternatives to reduce congestion at Glamis/Gecko and Buttercup. Development of access and visitor facilities (6-35 through 6-38) will provide users approaching from the Riverside/San Bernardino/Los Angeles area with a convenient alternative to Glamis.

The final decision to proceed with Mammoth Wash development will depend on funding, actual use trends, and the results of baseline resource monitoring studies. The problem of overcrowding in the Glamis/Gecko and Buttercup open areas is expected to begin to become acute when recreation area visitation reaches 1.2 million VUDs (a 33% increase over present levels).

Redistribution of camping use within the Glamis/Gecko and Buttercup areas through proposed access improvement and development projects in those areas should accommodate the increase up to that point. Development of relatively high-density concession RV campgrounds in those areas (prescriptions 8-7 through 8-9) will help accommodate some of the additional use, but expansion to additional Class I lands may also be needed after the 1.2 million VUD point has been passed.

Mammoth Wash is available and feasible to develop. It is BLM's intent, however, to delay Mammoth Wash development until demand cannot be accommodated in the other Class I areas. The intent at Mammoth Wash is not to create demand through premature development, but rather to respond to demand by developing if and when it becomes necessary.

6-35. Construct 50,000 square feet of gravel-surfaced camper parking on the north side of Mammoth Wash. — 6a, 6e

Discussion: Construction of camper parking and other facilities (6-36 through 6-38) will depend in part on whether a concession campground is established at Mammoth Wash (8-10). Implementation of some or all of the proposed BLM facilities could be omitted if they are instead provided by private enterprise.

6-36. Construct an 8-vault toilet unit on the north side of Mammoth Wash. — 6e

6-37. Establish a contract trash station on the north side of Mammoth Wash. — 6e

6-38. Install a pay telephone at the camping area on the north side of Mammoth Wash. — 2h, 6i

Issue 7 - Operations and Maintenance

Management prescriptions for Issue 7 are primarily concerned with staffing requirements for operating and maintaining the recreation area at the various levels of development and use. The reader should keep some important factors in mind while reviewing this part of the plan:

First, with the exception of seasonal or intermittent positions, the staff positions identified in this RAMP will be utilized throughout the El Centro Resource Area, and not only within the Imperial Sand Dunes. For example, the RAMP calls for adding four BLM Rangers to the Resource Area staff by Level 5. This does not mean that all of the new Rangers will be assigned to the dunes. Rather, it recognizes that four new Rangers will be required to meet anticipated resource protection needs on the entire 1.2 million acre El Centro Resource Area, both within the Imperial Dunes and on other areas of public lands, by the late 1990s. To call for increased Ranger patrol within the dunes without increasing the overall Ranger staff would mean that patrol time in other parts of the Resource Area would have to be reduced, leaving many important resources unprotected.

The priority functions of Rangers, Recreation Technicians, and Maintenance Workers are established in prescriptions 7-11, 7-19, and 7-31. It should be noted that the first priority function of BLM Rangers is established as resource protection and enforcement. At all levels above Level 1, the Ranger staff will be supplemented with seasonal Recreation Technicians who will assume some of the emergency medical and visitor services functions currently performed by Rangers. This will enable Rangers to concentrate more fully on the task of resource protection, which will become increasingly critical as use levels in the desert increase between the present and 2000 A.D. The seasonal Recreation Technicians will also assist the maintenance staff. The addition of these new seasonal Recreation Technicians is therefore a critical feature of this RAMP.

1. Resource Protection/Enforcement Staff

Management Prescriptions	Issues Involved
Level 1	
7-1. Patrol the entire recreation area with a single BLM Ranger assisted by up to three BLM Rangers from other patrol sectors during heavy-use periods.	1c, 2c, 3e, 3f, 7f
Discussion: This is the current situation. The El Centro Resource Area has four Rangers to patrol a total of 1.2 million acres. The Ranger assigned to the Imperial Sand Dunes also has patrol responsibility for a sector encompassing about 200,000 acres of adjacent public lands in addition to the dunes. Because the Imperial Sand Dunes receives half of the total visitation to the El Centro Resource Area, the other Rangers frequently assist the single Ranger formally assigned to the dunes patrol sector. Because of the importance of the resource protection function of Rangers, the number of rangers will not be reduced even if funding is	

reduced in Level 1. However, as resource protection needs grow with increased use, visitor services functions performed by Rangers will have to be curtailed in order to meet those protection needs.

7-2. Allocate approximately 840 hours of ranger patrol time to the recreation area annually, subdivided as follows: 1c, 2c, 3e, 3f

Area	Patrol Hours
Mammoth Wash	20
WSA 360	240
Glamis/Gecko	420
WSA 362	60
Buttercup/Gordons Well	80
Ogilby	20
TOTAL	840

Discussion: This is the current (1985) situation. Patrol hours indicate the approximate total number of hours actually spent in each area from all patrols. BLM Rangers made 340 separate patrols of the recreation area in 1985, with the average patrol lasting about 2-1/2 hours. Actual patrol lengths varied from brief drive-throughs during the off-season to continuous patrol between 8 a.m. and midnight during holiday use periods. A BLM Ranger spends approximately 1340 hours per year in field patrol.

Level 2

7-3. Add one additional BLM Ranger to the El Centro Resource Area staff. 1c, 2c, 3e, 3f, 7f

Discussion: Additional Rangers will be assigned to patrol as needed to meet resource protection and enforcement

needs throughout the El Centro Resource Area. Growing protection needs in the Imperial Dunes constitute only a portion of the overall justification for this position.

7-4. Allocate a total of approximately 1,200 hours of Ranger patrol time to the recreation area annually, subdivided as follows: 1c, 2c, 3e, 3f

Area	Patrol Hours
Mammoth Wash	40
WSA 360	300
Glamis/Gecko	420
WSA 362	100
Buttercup/Gordons Well	300
Ogilby	40
TOTAL	1,200

Discussion: Additional hours will be allocated to meet increasing needs outside the Glamis/Gecko area.

Level 3

7-5. Add one additional BLM Ranger to the El Centro Resource Area staff. 1c, 2c, 3e, 3f, 7f

Discussion: See discussion for 7-3.

7-6. Allocate a total of approximately 2,000 hours of Ranger patrol time to the recreation area annually, as follows: 1c, 2c, 3e, 3f

Area	Patrol Hours
Mammoth Wash	80
WSA 360	440
Glamis/Gecko	700
WSA 362	200
Buttercup/Gordons Well	500
Ogilby	80
TOTAL	2,000

Discussion: The major patrol increases at Level 3 are in the Glamis/Gecko and Buttercup/Gordons Well areas, which are expected to receive the greatest increases in use in the early 1990s.

Level 4

7-7. Add one additional BLM Ranger to the El Centro Resource Area staff. 1c, 2c, 3e, 3f, 7f

7-8. Allocate a total of approximately 2,500 hours of Ranger patrol time to the recreation area annually, subdivided as follows: 1c, 2c, 3e, 3f

Area	Patrol Hours
Mammoth Wash	300
WSA 360	600
Glamis/Gecko	650
WSA 362	330
Buttercup/Gordons Well	500
Ogilby	120
TOTAL	2,500

Discussion: The development of Mammoth Wash at Level 4 will result in significant patrol increases in the northern dunes. Diversion of some use (most notably that originating in the Los Angeles area) from Glamis/Gecko to Mammoth Wash will result in a small reduction in patrol hours at

Glamis/Gecko. Patrol hours in the Ogilby/ south WSA 362 area will grow, due to increased use and the need for increasingly active resource protection measures in Class L.

Level 5

7-9. Add one additional BLM Ranger to the El Centro Resource Area staff. — 1c, 2c, 3e, 3f, 7f

7-10. Allocate a total of approximately 3,000 hours of Ranger patrol time to the recreation area annually, subdivided as follows: — 1c, 2c, 3e, 3f

Area	Patrol Hours
Mammoth Wash	400
WSA 360	700
Glamis/Gecko	700
WSA 362	400
Buttercup/Gordons Well	600
Ogilby	200
TOTAL	3,000

Discussion: Patrol increases will be required in all areas to meet expected increases in use and consequent increased resource protection requirements.

2. Resource Protection/Enforcement Staff Functional Priorities

Management Prescriptions	Issues Resolved
All Levels	
7-11. BLM Ranger functional priorities within the recreation area are established as follows:	7h



The Imperial Sand Dunes are currently patrolled by a single BLM Ranger (assisted by up to three other Rangers during heavy-use periods). The Ranger patrolling the dunes also has patrol responsibility for an additional 200,000 acres outside the dunes.



The El Centro Resource Area employs a single Maintenance worker to clean up after 226,000 visitors to the Imperial Sand Dunes each year. The worker also has responsibility for two campgrounds and five Long-Term Visitor Areas outside the dunes.

Priority	Function
1.	Sensitive resource protection and enforcement (includes WSA monitoring).
2.	Emergency services.
3.	Safety rule/equipment enforcement.
4.	Mutual aid to other enforcement agencies.
5.	Information and interpretation.

Discussion: Sensitive resource protection is established as the priority function of Rangers. Rangers will, of course, continue to respond as needed to provide emergency medical assistance. However, the new EMT/Recreation Technicians will assume the emergency response function whenever possible (see prescription 7-19).

3. EMT/Visitor Services (Recreation Technician) Staff

Management Prescriptions	Issues Resolved
Level 2	
7-12. Hire two seasonal EMT/Recreation Technicians to be stationed at the Cahuilla Ranger Station between November 1 and Memorial Day.	2h, 5e, 7f

Discussion: Funding for these positions will be provided by the State OHV Fund for two years beginning with the 1987-88 season. This plan calls for continuing and expanding this program as needed in the future.

7-13. Allocate a total of approximately 1,200 hours of Recreation Technician time to field patrol annually, subdivided as follows: 2h, 5e

Area	Patrol Hours
Mammoth Wash	100
Glamis/Gecko	600
Buttercup/Gordons Well	400
Ogilby	100
TOTAL	1,200

Discussion: In contrast to BLM Rangers, who will patrol throughout the El Centro Resource Area, EMT/Recreation Technicians will be assigned exclusively to the Imperial Sand Dunes or occasionally to other OHV use areas. Their patrol hours will be accrued mostly on weekends. On weekdays, they will perform maintenance functions and prepare interpretive materials and programs (see prescription 7-19).

7-14. Hire up to four intermittent EMT/Recreation Technicians to work weekends and holidays between November 1 and Memorial Day at the Cahuilla Ranger Station. 2h, 5e, 7f

Discussion: Funding for these positions will be provided by the State OHV Fund for two years beginning with the 1987-88 season. These employees will staff the station, freeing the two seasonal Recreation Technicians to make visitor services patrols through the recreation area.

Level 3

7-15. Hire two additional seasonal EMT/Recreation Technicians to work primarily in the southern part of the recreation area. 2h, 5e, 7f

7-16. Allocate a total of approximately 2,400 hours of Recreation Technician time to field patrol annually, subdivided as follows: 2h, 5e

Area	Patrol Hours
Mammoth Wash	200
Glamis/Gecko	1,100
Buttercup/Gordons Well	900
Ogilby	200
TOTAL	2,400

Level 4

7-17. Hire one additional seasonal EMT/ Recreation Technician to work primarily in the northern part of the recreation area (Mammoth Wash). 2h, 5e, 7f

7-18. Allocate a total of approximately 3,000 hours of Recreation Technician time to field patrol annually, subdivided as follows: 2h, 5e

Area	Patrol Hours
Mammoth Wash	700
Glamis/Gecko	1,200
Buttercup/Gordons Well	900
Ogilby	200
TOTAL	3,000

Level 5

(Same level of staffing to be retained.)

4. EMT/Recreation Technician Staff Functional Priorities

Management Prescriptions	Issues Resolved
All Levels	
7-19. EMT/Recreation Technician staff functional priorities are established as follows:	7h

Priority	Function
1.	Emergency Services.
2. (weekends)	Public information and interpretation.
2. (weekdays)	Maintenance of management facilities, especially signs, the ranger station, fences, and barricades, in conjunction with maintenance workers.
3.	Reporting violations to Rangers.

5. Recreation Planning Staff

Management Prescriptions	Issues Resolved
Level 1	
7-20 If funding permits, retain a Lead Outdoor Recreation Planner and Outdoor Recreation Planner positions in the El Centro Resource Area Office.	7f, 7g

Discussion: Two Outdoor Recreation Planners are needed to administer the large recreation program in the Resource Area. With completion of the Imperial Sand Dunes RAMP, the planning emphasis will shift to preparation of site plans for specific proposed facilities, preparation of State OHV Grant applications, administration of the permit program for special recreation events, and other aspects of RAMP implementation.

Outdoor Recreation Planners also perform uniformed visitor services work such as staffing the Cahuilla Ranger Station and making field interpretive contacts. If Level 1 funding cuts make elimination of one Recreation Planner mandatory, visitor services such as Ranger Station operation will have to be cut back and the number of special events permitted by BLM will likely have to be reduced.

Level 2

(Maintain Level 1 staff)

Level 3

7-21. Add one Outdoor Recreation Planner to the El Centro Resource Area staff to serve as a recreation permit and concessions management specialist. 7f, 8d

Discussion: The third Recreation Planner will specialize in concession planning, liaison, and management, as well as in the administration of other special use authorizations throughout the Resource Area.

Level 4

(Maintain Level 3 staff)

Level 5

(Maintain Level 4 staff)

6. Maintenance Staff

Management Prescriptions	Issues Resolved

Level 1

7-22. Accomplish all maintenance tasks in the El Centro Resource Area with a single Maintenance Worker. — 7b, 7d, 7f

Discussion: This is the current situation, which is a reduction since 1980, when the Resource Area employed two maintenance workers.

7-23. Allocate approximately 680 hours of Maintenance Worker time to the Imperial Sand Dunes annually, subdivided as follows: — 7b, 7d, 7f

Area	Maintenance Hours
Mammoth Wash	10
Glamis/Gecko	630
Buttercup/Gordons Well	25
Ogilby	15
TOTAL	680

Discussion: This is the current situation. The vast majority of hours are devoted to basic sanitation (trash pick up and toilet cleaning), sign installation and replacement, and sand clearing along the Imperial Sand Dunes (Gecko) Road, the area of existing facility development.

Level 2

7-24. Add one seasonal Maintenance Worker between November 1 and Memorial Day. — 7b, 7c, 7d, 7f

Discussion: Funding for this position will be provided by the State OHV Fund for two years beginning with the 1987-88 season. This position will at least partially compensate for the full-time position lost in 1980. Two maintenance

workers are necessary to meet increasing demands throughout the resource area. This employee will work exclusively in the dunes or in other OHV use areas.

7-25. Allocate approximately 1,300 hours of Maintenance Worker time to the Imperial Sand Dunes annually, subdivided as follows: 7b, 7c, 7d, 7f

Area	Maintenance Hours
Mammoth Wash	20
Glamis/Gecko	1,050
Buttercup/Gordons Well	200
Ogilby	30
TOTAL	1,300

Discussion: Increases will be required to maintain the new Roadrunner Campground, to improve preventative maintenance of existing facilities in the Gecko area and to organize and supervise increased volunteer trash cleanup projects near Glamis. The employee will also perform site (overflow) cleanups at new contract trash stations at Buttercup, Grays Well, and Gordons Well, and keep the new Buttercup Road (Grays Well extension) clear of sand.

Level 3

7-26. Add an additional full-time Maintenance Worker to the El Centro Resource Area staff. 7b, 7c, 7d, 7f

Discussion: With the major expansion of facilities at Glamis and the Buttercup/Grays Well/Gordons Well area, and the addition of two new bridges (Sand Hills Overpass and the Gordons Well bridge over Coachella Canal) in the southern part of the recreation area, maintenance staff requirements will double between Level 2 and Level 3. The new full-time Maintenance Worker will assume overall responsi-

bility for maintenance of the southern dunes recreation sites and other nearby sites such as Long Term Visitor Areas.

7-27. Add an additional seasonal Maintenance Worker between November 1 and Memorial Day. 7b, 7c, 7d, 7f

Discussion: The seasonal worker will be needed to meet maintenance requirements of the southern dunes recreation sites during the use season.

7-28. Allocate approximately 2,600 hours of Maintenance Worker time to the Imperial Sand Dunes annually, subdivided as follows: 7b, 7c, 7d, 7f

Area	Maintenance Hours
Mammoth Wash	150
Glamis/Gecko	1,400
Buttercup/Gordons Well	900
Ogilby	150
TOTAL	2,600

Discussion: Level 3 increases reflect the growing maintenance commitment in the Glamis and Buttercup/Grays Well/ Gordons Well areas.

Level 4

7-29. Add an additional seasonal Maintenance Worker between November 1 and Memorial Day. 7b, 7c, 7d, 7f

Discussion: The additional seasonal worker will be needed to meet increasing commitments, especially at Mammoth Wash. Development of a concession facility at Mammoth could make this position unnecessary.

7-30. Allocate approximately 2,900 hours of Maintenance Worker time to the Imperial Sand Dunes annually, as follows: 7b, 7c, 7d, 7f

Area	Maintenance Hours
Mammoth Wash	350
Glamis/Gecko	1,500
Buttercup/Gordons Well	900
Ogilby	150
TOTAL	2,900

Discussion: Allocation of hours will depend in part on the degree to which concessions assume maintenance responsibilities.

Level 5

(Same staffing as Level 4)

7. Maintenance Staff Functional Priorities

Management Prescriptions — Issues Resolved

All Levels

7-31. Maintenance staff functional priorities are established as follows: 7h

Priority	Function
1.	Developed recreation site sanitation (toilets, trash).
2.	Sand removal from roads and camping pads.
3.	Developed recreation site facility/building repair and maintenance.

4. Dispersed area trash cleanup and supervision of volunteer cleanup projects.

8. Volunteer Program

Management Prescriptions	Issues Resolved
Level 2	
7-32. Establish a Volunteer Dunes Patrol to assist in distributing safety and recreation information, conduct safety workshops, radio emergency accident information to BLM staff, and conduct trash pickups and other light maintenance projects.	2a, 2h, 5a, 5b, 5d, 5e, 7d, 7g
Discussion: The Dunes Patrol is a vital element in the recreation area safety and interpretive programs, and will provide invaluable assistance to BLM Rangers and EMT/Recreation Technicians. See related prescriptions 2-5, 5-12, 5-13, and 6-3.	
7-33. BLM will actively recruit for volunteers to perform a wide range of non-hazardous, non-law enforcement operations and maintenance functions.	7g
Discussion: Available volunteer positions (in addition to the Dunes Patrol and group trash cleanups) include jobs in maintenance, monitoring of WSAs and sensitive resources, development and installation of interpretive signs, and many others. BLM already actively advertises for volunteers in a variety of publications, and this recruitment effort will continue.	

Level 3

7-34.	Expand the volunteer Dunes Patrol program to the southern dunes (Buttercup, Grays Well, Gordons Well).	2a, 2h, 5a, 5b, 5d, 5e, 7d, 7g

Level 4

7-35.	Expand the volunteer Dunes Patrol program to the northern dunes (Mammoth Wash Open Area.	2a, 2h, 5a, 5b, 5d, 5e, 7d, 7g

9. Alternate Funding Sources

BLM policy is to seek and accept contributions of equipment and funds for operations and maintenance purposes, and to enter into cooperative management agreements with individuals, organizations, companies, or state government agencies. An example of such an agreement is the American Honda litter cleanup agreement, under which American Honda Motor Company donated a trash compactor and a four-wheeled ATV and utility trailer, as well as trash cans and continuing trash can maintenance (repainting).

Specific actions (at all funding levels) to encourage alternate funding include:

	Management Prescriptions	Issues Resolved
7-36.	Develop a special "Imperial Sand Dunes" section in future editions of the California BLM Gift Catalog, which identifies potential gifts for prospective contributors. Discussion: Prospective donors will be encouraged to make gifts of equipment items or funds for facilities or contract maintenance services.	7e
7-37.	BLM will work closely with the California Department of Parks and Recreation and State OHV Commission to identify	7e

both short and long-term funding commitments from the California State OHV Fund.

Discussion: The State OHV Fund will play a pivotal role in implementation of this plan. While the California Desert District will make every effort to seek BLM appropriations to implement as much of the plan as possible, the trend is toward budget reductions for Federal agencies. The recreation area has already been developed to the limit of BLM's current operation and maintenance capabilities. As the plan indicates, the developments anticipated at Level 2 depend in part on State OHV Fund support for operations and maintenance. This trend is likely to increase at subsequent funding levels unless significant new sources of revenue become available from the Federal sector.

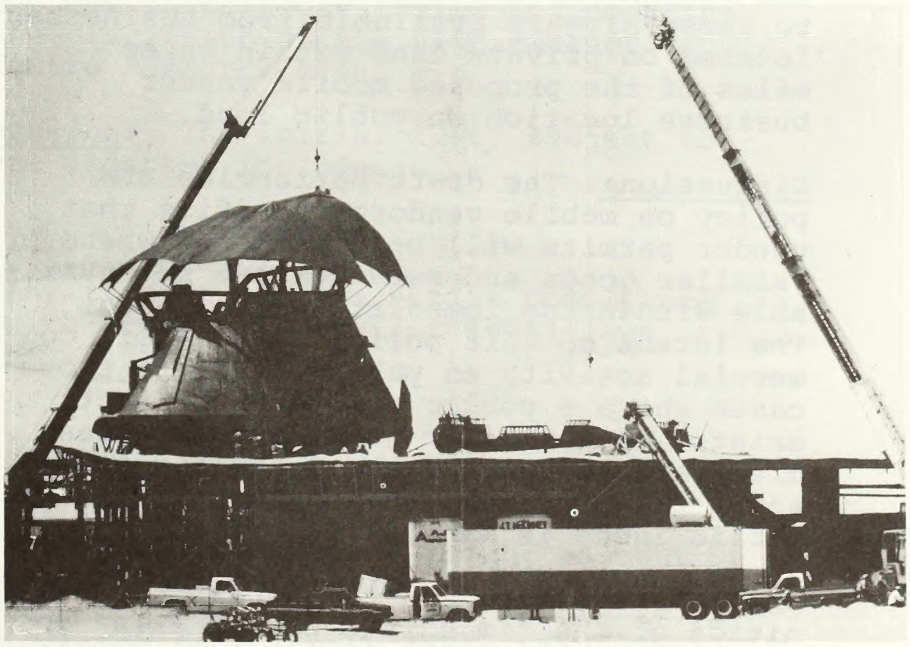
State OHV projects for site developments will be proposed only after: a) reaching agreement in principle with the State as to respective BLM/State continuing commitments for operations and maintenance, and b) conducting a careful analysis of options in the event State support comes to an end.

Issue 8 - Concessions and Vendors

Management Prescription	Issues Resolved
Level 1	
8-1. Consider mobile vendor permit applications for goods or services which a) enhance public enjoyment of the recreation area, b) meet an identified public need as determined by the Area Manager, El Centro Resource Area, and c) do not conflict with BLM management objectives or planning decisions.	8a, 8b



Vending activity in the Imperial Sand Dunes, Thanksgiving weekend, 1985. Vendors pay assessed fair-market value for BLM vendor permits, and must also obtain all required State and County permits.



Workmen assemble an alien OHV in Buttercup Valley, late 1981. The dunes are a popular site for movie and television filming. See prescriptions 10-11 and 10-12.

Discussion: The mobile vendor permit, which is issued on a day-by-day basis, is the most basic type of authorization for commercial activity on public lands. Location is a major consideration in determining whether or not a mobile vendor operation is consistent with BLM objectives and planning decisions. Vendor locations are considered acceptable when:

a. Recreational users will not be displaced from limited camping space by vendors.
b. The vendor operation will not create hazardous conditions.
c. The business will not contribute to unnecessary or undue resource damage or other impacts inconsistent with the multiple-use class (or classes) affected.

8-2. Do not approve permit applications for the vending of goods or services similar to those already available from businesses located on private land within three miles of the proposed mobile vendor business location on public land. 8b

Discussion: The draft nationwide BLM policy on mobile vendors specifies that vendor permits will be considered whenever "similar goods and services are not available within the immediate travel area." The intent of this policy is to limit commercial activity on public lands to those cases where a public need does in fact exist. When similar goods and services are available within the immediate travel area, the need for vending activity on public lands is minimal.

Three miles is considered a reasonable definition of the "immediate travel area" in the dunes. This means that vendors will not be permitted to operate within three miles of private businesses at Glamis or

Boardmanville if similar goods or services are available at those businesses.

The Area Manager, El Centro Resource Area, will make the determination as to which categories of goods or services are "similar" to those at adjacent private businesses, following annual consultation with the operators of the businesses to determine services offered. A list of categories of goods or services for which permits will not be issued within the three-mile zone will be developed at the beginning of each use season.

8-3. Establish a list of goods or services which have been determined by the Area Manager, El Centro Resource Area, to be inconsistent with the management objectives of the Imperial Sand Dunes Recreation Area, and for which vending permits will be denied. This list will be subject to periodic review and updating at the discretion of the Area Manager, El Centro Resource Area. 8c

Discussion: The initial list, subject to future updates, includes:

a. Alcoholic beverages
b. Glass containers
c. Any item or service not in compliance with Federal, State, or local laws or regulations.

Level 2

8-4. Consider concession permit applications for commercial operations which: a) meet the basic requirements for mobile vendor permits, b) require occupancy or use of public lands on a longer basis than mobile vending, and c) may require erection of minimal semi-permanent structures. 8a

Discussion: Concession permits are issued when:

a. Annual gross receipts are expected to be less than $100,000 per year.
b. The term of the permit is five years or less.
c. Services are generally authorized by BLM rather than required.
d. No major capital investments are required or authorized.
e. No possessory interest or preferential right is granted.

Types of recreational operations considered for concession permits would include such things as scenic dune buggy tours, establishment of an ATV rental service on more than a day-to-day basis (i.e., a fenced compound or other facility would be required for security for the entire season) and similar businesses. Business authorized under concession permits will be subject to the restrictions of prescriptions 8-2 and 8-3.

Level 3

8-5. Designate specific vendor areas near each major recreation site for mobile vendors who normally park at a single location to do business. 8a

Discussion: As competition for available campsites becomes more acute, it will become necessary to designate specific vendor locations. See prescription 6-8.

8-6. Consider long-term concession leases if a) the concession will meet an identified public need and b) the leased service will provide active support to BLM's management program. 8d

Discussion: Long-term concession leases are issued if:

a. BLM determines that such a concession is necessary to meet BLM management objectives.
b. The concessioner will be required to make a substantial investment in personal property.
c. The concessioner will be required to acquire or construct real property facilities.
d. The term of the lease is to be five years or more in duration (sufficient to provide for a reasonable amortization of the capital investment).

The two main types of long-term leases to be considered in the Imperial Sand Dunes will be for general store and RV campground facilities. Such leases will be awarded on a competitive bid basis in response to a bid prospectus issued by BLM.

Prescriptions 8-9 through 8-10 designate potential concession development zones and establish an approximate timetable for leasing of concessions in the various zones. The final decision to solicit for lease proposals will be based on actual trends in public use and demand in the recreation area. The basic principle here is identical to that stated previously in relationship to the development of Mammoth Wash. Concession leases will not be authorized in order to create demand. Instead, they will be issued when necessary to meet public demand and to support BLM management objectives. The proposed concession leasing schedule reflects workshop and workbook input from the public regarding the current need for and desirability of long-term concessions, as well as the anticipated need to provide for higher density camping facilities in the mid-to-

late 1990s. If the expected increase in demand should develop more gradually than anticipated, the need for concessions may also develop more gradually.

8-7. Designate a 150-acre concession development zone west of Grays Well (the Plank Road) for potential leasing approximately 1991. 8e

Discussion: Workshop and workbook input indicated a more immediate need for concession facilities in the southern dunes than in other areas. The decision to lease earlier here is also based on BLM's more limited existing management capability in the southern dunes.

The location west of Grays Well was selected to avoid commercial congestion around the Buttercup Valley/Sand Hills Interchange area and to provide a central commercial service zone once the access corridor over the canal and freeway from Gordons Well and Dune Buggy Flats has been developed.

Level 4

8-8. Designate a 300-acre concession development zone on the west side of the Imperial Sand Dunes (Gecko) Road about three miles south of State Highway 78, for potential leasing approximately 1995. 8e

Discussion: This site was selected because of favorable terrain (relatively flat and stable) for facility development, because it is located well within the existing Class I area, and because it is conveniently accessible to all users along the road.

8-9. Designate a 200-acre concession development zone on the flats between the Southern Pacific Railroad and the dunes 8e

approximately one mile south of Glamis, for potential leasing approximately 1995.

Discussion: Development of this site will depend in part on commercial services and facilities then available on nearby private lands. The primary anticipated need is for an RV campground facility. Development of adjacent private lands for this purpose is preferred to development of a BLM concession.

8-10. Designate a 300-acre concession development zone on the north side of Mammoth Wash in Sec. 6, T. 12 S., R. 16. E., SBM, for potential leasing approximately 1996.

Discussion: See the discussion for prescription 6-34. If Mammoth Wash is developed on a concession basis, the need for development of BLM facilities may be reduced or eliminated.

Issue 9 - Access Easements and Land Acquisition

1. Access Easements and Relinquishments

Management Prescriptions	Issues Resolved
Level 2	
9-1. Acquire an access easement and encroachment permit for public use of 3.0 miles of the dirt railroad maintenance road south of Glamis in Secs. 33 and 34, T. 13 S., R. 18 E., SBM; and Secs. 1, 2, and 12, T. 14 S., R. 18 E., SBM.	1a, 2b, 9a
Discussion: See prescription 6-12.	
9-2. Following BLM acquisition of Sec. 36, T. 13 S., R. 17 1/2 E., SBM, petition Imperial County for relinquishment of the Osborn Park site to BLM.	1a, 2b, 9b

Discussion: Imperial County has asked BLM to assume management of Osborn Park on several occasions. The logical time for the transfer of administration is when BLM acquires the land on which the County-developed facility is located. See also related prescriptions 5-4, 5-5, and 9-8b.

9-3. Following construction of the Sand Hills Interchange, petition Imperial County for relinquishment of the Grays Well Road to BLM. 9a

Discussion: Following construction of the Sand Hills Interchange, the Grays Well County Road will be cut off from Interstate 8 except via the new BLM Grays Well Road extension (Buttercup Road).

The County does not wish to retain its portion of the Grays Well Road once its direct access to the freeway is cut. The County has also indicated that its maintenance funding is inadequate for it to assume responsibility for the new BLM portion of the road.

Since the Grays Well Road entirely serves the BLM recreation area, relinquishment to BLM is necessary. Depending on the relative status of BLM and County road maintenance funding in the future, the road could potentially be returned to the County after it is connected with the Gordons Well Interchange (6-31) in the late 1990s.

Level 3

9-4. Acquire an encroachment permit from the Southern Pacific Railroad for development of a hiker trailhead parking area on the east side of the Niland-Glamis Road, four miles north of Glamis in Sec. 12, T. 13 S., R. 17 1/2 E., SBM. 9a

Discussion: See prescription 1-13.

9-5. Acquire an encroachment permit for construction of a bridge over the Coachella Canal near Gordons Well (Dune Buggy Flats), in Sec. 32, T. 17 S., R. 20 E., SBM. 9a

Discussion: See prescription 6-28.

Level 4

9-6. Acquire an access easement across 1.0 mile of private land in Sec. 1, T. 12 S., R. 15 E., SBM, to allow construction of an extension of Montgomery Road to Mammoth Wash. 9a

Discussion: See prescription 6-34.

Level 5

9-7. Acquire an encroachment permit for construction of the Grays Well Road bridge across the All-American Canal in Sec. 6, T. 17 S., R. 20 E., SBM. 9a

Discussion: See prescription 6-31.

2. Land Acquisition

A total of 2,680 acres of State, 160 acres of County of Imperial, and 5,660 acres of undeveloped private lands are proposed for acquisition in order to improve manageability of the recreation area. Lands in Class I are proposed for acquisition to insure continued availability of OHV recreation opportunities. Lands in WSAs or Class L are proposed for acquisition to protect sensitive resources. Where possible, acquisition will be by exchange in order to minimize costs.

Management Prescriptions	Issues Resolved

Level 2

9-8. Acquire through exchange the following undeveloped State of California lands situated within Class I: — 9b

	T.	R.	Sec.	Acres	Open Area
a.	13 S.	17 E.	36 (partial)	418	Glamis/Gecko
b.	13 S.	17 1/2 E.	36	640	Glamis/Gecko
c.	14 S.	18 E.	16	640	Glamis/Gecko
d.	12 S.	16 E.	36 (partial)	320	Mammoth Wash
	TOTAL			2,018	

Discussion: It is anticipated that all State of California (9-8 and 9-10) lands will be acquired as a part of the ongoing BLM/State exchange program. These State lands and the County parcel (9-9.) are the top priority lands for acquisition because they are the lands on which the most immediate action is needed to insure uniform management of OHV recreation and to protect wilderness values. In several cases the parcels occupy the boundary between Class I and a WSA.

9-9. Acquire through exchange undeveloped County of Imperial lands situated within Class I (Glamis/Gecko Open Area) in the NE 1/4 Sec. 36, T. 13 S., R. 17 E., SBM (160 acres). — 9b

Discussion: See prescription 9-8.

9-10. Acquire through exchange the following undeveloped State of California lands situated within WSAs or Class L: — 9c

	T.	R.	Sec.	Acres	Area
a.	12 S.	16 E.	36 (partial)	320	WSA 360
b.	13 S.	17 E.	36 (partial)	62	WSA 360
c.	14 S.	18 E.	36 (partial)	280	WSA 362
	TOTAL			662	

Discussion: See prescription 9-8.

Level 3

9-11. Acquire through exchange undeveloped private lands situated within Class I in Secs. 5, 9, 15, 16, and 17, T. 12 S., R. 16 E., SBM (3200 acres). 9b

Discussion: These lands are in the Mammoth Wash Open Area.

9-12. Acquire through exchange undeveloped private lands situated within Class L and WSA 360 in Sec. 16, T. 13 S., R. 17 E., SBM, (640 acres). 9c

Discussion: This parcel straddles the west boundary of WSA 360 at the Coachella Canal.

Level 4

9-13. Acquire through exchange the following undeveloped private lands situated within Class L or WSA 362: 9c

	T.	R.	Sec.	Acres	Area
a.	14 S.	18 E.	36 (partial)	40	WSA 362
b.	15 S.	20 E.	28, 33, 34	1,140	Class L
c.	15 S.	19 E.	16	640	WSA 362
	TOTAL			1,820	

Discussion: The two parcels in WSA 362 face no immediate threats from development. The lands in Class L are near Ogilby. Acquisition will create a more manageable recreation area boundary in the Ogilby area.

Issue 10 - Compatibility of Land Uses

1. **Bureau of Reclamation Withdrawal**

Management Prescriptions	Issues Resolved
All Levels	
10-1. Coordinate with the Bureau of Reclamation on the proposed project to line the All-American Canal.	10a
Discussion: The Bureau of Reclamation will need to consider the proposed All-American Canal bridge for the Grays Well Road (6-28) in the design of the relined canal.	

2. **U.S. Navy Cooperative Agreement**

Management Prescriptions	Issues Revolved
All Levels	
10-2. Implement the Navy/BLM/Bureau of Reclamation Cooperative Agreement within the Imperial Sand Dunes Recreation Area.	10b
Discussion: The Target 68 closure will be enlarged to extend all the way to the west side of the old Coachella Canal. Navy review will be required on all proposed development projects in Range Safety Zone C in the Gecko area.	

3. **Sand and Gravel Sales and Free-Use Permits**

Management Prescriptions	Issues Resolved
All Levels	
10-3. At sand and gravel pits east of Glamis, require the operator to leave safe contours (maximum 5:1 slope) and vehicular access to the pits at the conclusion of operations.	10c
Discussion: Abandoned gravel pits east of Glamis are utilized by the public as camping areas. This stipulation will insure the pits are left in a safe condition.	
10-4. Issue permits for sand and gravel extraction within Class I only for operations during the period June 15-September 30, and require pits to be left in a safe condition (maximum 5:1 slope) following operations.	10c
Discussion: This limitation will eliminate potential conflicts with recreational use.	
10-5. Do not issue permits for sand and gravel extraction in WSAs or Class L.	10c
Discussion: The presence of sensitive resources in WSAs and Class L, combined with the tremendous volume of sand available in Class I, make extraction in WSAs or Class L unnecessary.	

4. **Mining Claims**

Management Prescriptions	Issues Resolved
All Levels	
10-6. Require the operator to post unsafe conditions as a stipulation in the plan of operations.	10d

Discussion: This requirement will reduce, but not eliminate, potential conflicts between mining and recreation. The incidence of mining claims is, however, small in the dune system proper.

5. **Rights-of-Way**

Management Prescriptions	Issues Resolved
All Levels	
10-7. Confine new rights-of-way to existing corridors.	10e
10-8. Require posting of reflective devices on poles, guy wires or any other surface structures erected within Class I to enhance day and night visibility.	10e

6. **Land-Use Permits**

Management Prescriptions	Issues Resolved
All Levels	
10-9. Confine apiary sites to locations one mile or more from intensive recreational use zones.	10f
Discussion: This is consistent with the existing El Centro Resource Area Apiary Management Plan.	
10-10. Permit no apiary sites within the dunes system proper.	10f
Discussion: The dunes generally lack the water and two-wheel drive access needed for apiary operations, so this prescription will have no impact on existing operations.	
10-11. Issue commercial filming permits for weekdays when possible.	10f

Discussion: The dunes are a popular setting for movies, TV shows, and commercials. Permits are generally issued for weekdays to avoid recreational use. However, it is recognized that depiction of recreational use may be essential to some filming projects.

10-12. Issue long-term filming permits (for periods of longer than five consecutive days) requiring the erection of structures or continuous presence of work or film crews only for sites where recreational use will not be disrupted. 10f

7. Geothermal Leasing

Management Prescriptions	Issues Resolved
All Levels	
10-13. Do not lease the Glamis/Gecko Open Area except for "no surface occupancy" leases on peripheral tracts which can be reached by slant drilling from outside the sand dune system.	10g
Discussion: The Glamis/Gecko Open Area sits astride the Glamis Known Geothermal Resource Area. The decision not to lease this area was reached through the 1981 Glamis/Dunes Geothermal Leasing Environmental Assessment. It recognizes the serious safety problems which could arise from installation of wells, surface pipes, and other structures in the off-road vehicle area.	
10-14. Follow decisions reached in the Glamis/Dunes Geothermal Leasing Environmental Assessment for the remainder of the recreation area.	10g

Discussion: The EA called for no leasing or no-surface-occupancy leasing throughout Class L and WSAs (leasing in WSAs is also prohibited by Departmental policy). The only parts of the recreation area subject to leasing are a section of East Mesa on the southwest side of the dune system and the area east of Glamis.

PART IV
Implementation and Cost Estimates

PART IV - IMPLEMENTATION AND COST ESTIMATES

A. Detailed Implementation Plan

The following table presents a detailed projection of scheduling and costs for each management prescription, as well as identification of proposed funding sources. The following factors should be considered in interpreting the detailed plan:

1. All costs are shown in 1987 dollars. Inflation is not figured into the cost estimates, because actual implementation dates will vary according to funding availability. To obtain an estimate of the actual cost at time of completion, add 5% per year after 1987.

2. Ongoing projects are indicated in the "Date Projected Complete" column by two dates separated by a hyphen (-). These two dates are the first and last years the project will occur. All costs shown for ongoing projects will be recurring annual costs for every year beginning with the first listed date and ending with the second listed date. In cases where completion dates are listed without hyphens, the project will occur only on the year or years actually listed.

3. A BLM "work month" is equal to 172 work hours. The average work month cost is $2,500. To figure labor costs, multiply the listed work month figure by $2,500.

4. For prescriptions calling for staff increases, only the portion of a staff person's salary and expenses directly attributable to the Imperial Sand Dunes is shown on this table. In most cases (except seasonal positions), the figure shown is only 30-40% of the actual cost of adding the new position. This is because most new positions will have Resource Area-wide duties and responsibilities.

5. Administrative costs are incorporated into the cost figures and account for approximately 20% of total costs.

6. The principle proposed funding source other than BLM is the California Department of Parks and Recreation's State OHV Fund (abbreviated "DPR-OHV"). OHV Projects already approved by the DPR are indicated by an asterisk(*).

TABLE 8 DETAILED IMPLEMENTATION PLAN

MANAGEMENT PRESCRIPTION NUMBER	ACTION	DATE PROJECTED COMPLETE	PROJECTED WORK MONTHS	PROJECTED MATERIAL COST	CONTRACT VALUE	FUNDING SOURCE	ADMINISTRATIVE PURPOSES DEC. NUM.	SUB-ACT.	PROG. ELEM.	FMS RPT	UNIT NUM.	UNIT LABEL
LEVEL 1												
1-1	ENFORCE NO PARKING ON ROADWAYS.	9/30/87 - 9/30/99	SEE 7-1.*	$200		BLM	RE-36	4333	12	Y	13	476
1-2	NO COMP. EVENTS ALONG GECKO ROAD.	9/30/87 - 9/30/99	0.1			BLM	RE-13 RE-36	4333	11	Y	2	686
1-3	DELENIATE COMP. EVENT STAGING AREAS AT GLAMIS.	9/30/87 - 9/30/99	0.1			BLM	RE-13 RE-36	4333	11	Y	2	686
1-4	ENFORCE ALGODONES CLOSURE.	9/30/87 - 9/30/99	SEE 7-1.*			BLM	RE-36 WL-20	4333	12	Y	20	476
2-1	REQUIRE EMT TRAINING FOR RANGERS.	9/30/87 - 9/30/99	0.2	$400		BLM	RE-36	4333	03	N	2	596
2-2	STATION EMTs AT CAHUILLA R.S. 20 DAYS/YR.	9/30/87 - 9/30/99	2.0			BLM	RE-36	4333	12	Y	44	476
2-3	ENFORCE SAFETY AND EQUIPMENT LAWS.	9/30/87 - 9/30/99	SEE 7-1			BLM	RE-36	4333	12	Y	10	476
2-4	ENFORCE STREET-LEGAL USE OF MAINTAINED ROADS.	9/30/87 - 9/30/99	SEE 7-1	$400		BLM	RE-36	4333	12	Y	10	476
3-1	NO SITE DEVELOPMENT AT OGILBY.	9/30/87 - 9/30/99	0.1			BLM	RE-36	4333	10	Y	1	531
3-2	NO COMP. EVENT START/FINISH/PITS IN CLASS L.	9/30/87 - 9/30/99	0.1			BLM	RE-36	4333	11	Y	2	686
3-3	ALLOW COMP. EVENTS TO PASS THROUGH CLASS L.	9/30/87 - 9/30/99	0.2			BLM	RE-13 RE-36	4333	11	Y	1	686
3-4	POST CLOSURES WITH MAX. INTERVAL OF 1/4 MILE.	9/30/87 - 9/30/99	0.2	$400		BLM	RE-36	4712	11	Y	1	405
4-1	INSURE COMPLIANCE WITH IMP.	9/30/87 - 9/30/99	0.2			BLM	WI-9	4332	10	Y	2	676

MANAGEMENT PRESCRIPTION NUMBER	MANAGEMENT PRESCRIPTION ACTION	DATE PROJECTED COMPLETE	PROJECTED WORK MONTHS	PROJECTED MATERIAL COST	CONTRACT VALUE	FUNDING SOURCE	ADMIN. DEC. NUM.	ADMIN. SUB-ACT.	ADMIN. PROG. ELEM.	ADMIN. FMS RPT	ADMIN. UNIT NUM.	ADMIN. UNIT LABEL
4-2	WSA MONITORING	9/30/B7 - 9/30/99	1.7		$1,200	BLM	WI-9	4332	10	Y	12	441
5-1	REPRINT BROCHURE AS NEEDED.	9/30/BB 9/30/90 9/30/93 9/30/96, 9/30/99	0.1		$4,100	BLM	RE-36	4333	12	N	1	346
5-2	DISTRIBUTE BROCHURES VIA BLM PERSONNEL.	9/30/B7 - 9/30/99	0.1			BLM	RE-36	4333	12	Y	2	476
7-1	PATROL WITH ONE RANGER.	9/30/B7 - 9/30/99	SEE 7-2	$4,700		BLM	RE-36	4333	12	Y	20	476
7-2	ALLOCATE B40 HOURS OF PATROL TIME.	9/30/B7 - 9/30/99	0.5			BLM	WL-20	4352	12	N	5	476
			0.5			BLM	WI-9	4332	10	Y	5	476
			3.4			BLM	RE-36	4333	12	Y	10	476
			0.5			BLM	CR-1	4331	13	N	5	476
7-11	ESTABLISH RANGER FUNCTIONAL PRIORITIES	1/30/B7	0.1			BLM	RE-36	4333	10	N	1	431
7-20	RETAIN LEAD ORP AND ORP POSITIONS.	9/30/B7 - 9/30/99	3.0	$1,B00		BLM	RE-36	4333	10	Y	5	531
7-22	MAINTAIN AREA WITH ONE MAINT. WORKER.	9/30/B7 - 9/30/99	SEE 7-23		$1,200	BLM	RE-36	4712	11	Y	1	381
				$4,700	$2,900	BLM	RE-36	4712	11	Y	1	411
					$11,B00	BLM	RE-36	4712	11	Y	1	416
				$1,200		BLM	RE-36	4712	11	Y	1	612
7-23	ALLOCATE 6B0 HOURS OF MAINTENANCE TIME.	9/30/87	0.2			BLM	RE-36	4712	11	Y	1	3B1
			3.0			BLM	RE-36	4712	11	Y	2	411
			0.5			BLM	RE-36	4712	11	Y	1	416
			0.3			BLM	RE-36	4712	11	Y	1	612
7-31	ESTABLISH MAINT. WORKER FUNCTIONAL PRIORITIES.	1/30/B7	0.1			BLM	RE-36	4333	10	N	1	431
7-36	DEVELOP IMPERIAL DUNES SECTION FOR GIFT CATOLOG.	9/30/B7	0.1	$200		BLM	RE-36	4333	10	N	1	526
7-37	IDENTIFY OHV FUND COMMITMENTS.	6/30/B7	0.3			BLM	RE-36	4333	10	N	1	526
B-1	CONSIDER COMPATIBLE MOBILE VENDOR APPLICATIONS	9/30/B7 - 9/30/99	0.2	$200		BLM	MO-33	4212	21	Y	20	6B1

MANAGEMENT PRESCRIPTION NUMBER	MANAGEMENT PRESCRIPTION ACTION	DATE PROJECTED COMPLETE	PROJECTED WORK MONTHS	PROJECTED MATERIAL COST	CONTRACT VALUE	FUNDING SOURCE	ADMINISTRATIVE PURPOSES DEC. NUM.	SUB-ACT.	PROG. ELEM.	FMS RPT	UNIT NUM.	UNIT LABEL
8-2	DO NOT APPROVE VENDING WITHIN 3 MILES OF EXISTING BUSINESSES.	9/30/87 - 9/30/99	0.1			BLM	MO-33	4212	21	Y	2	681
8-3	LIST OF INCONSISTENT GOODS OR SERVICES.	6/30/87	0.1	$400		BLM	RE-36	4333	10	N	1	526
10-1	COORDINATE WITH US BUR OF REC	9/30/87 - 9/30/99	0.1			BLM	RE-36	4333	10	N	1	246
10-2	IMPLEMENT NAVY AGREEMENT.	9/30/87	0.5	$600		BLM	RE-36	4333	12	Y	11	476
10-3	REQUIRE SAFE CONTOURS ON GRAVEL PITS.	9/30/87 - 9/30/99	0.1			BLM	GE-5	4131	11	Y	1	601
10-4	SAND EXTRACTION IN CLASS I - SUMMER ONLY.	9/30/87 - 9/30/99	0.1			BLM	GE-5	4131	11	Y	1	601
10-5	NO SAND AND GRAVEL EXTRACTION IN CLASS L.	9/30/87 - 9/30/99	0.1			BLM	GE-5	4131	11	Y	1	601
10-6	MINERS POST UNSAFE CONDITIONS.	9/30/87 - 9/30/99	0.1			BLM	GE-1	4132	10	Y	1	496
10-7	NEW R/W ONLY IN EXISTING CORRIDORS.	9/30/87 - 9/30/99	0.1			BLM	MO-33	4211	12	Y	1	546
10-8	REQUIRE REFLECTIVE DEVICES ON STRUCTURES.	9/30/87 - 9/30/99	0.1			BLM	MO-33	4211	12	Y	1	546
10-9	NO APIARY SITES WITHIN 1 MILE OF REC. ZONES.	9/30/87 - 9/30/99	0.1			BLM	MO-33	4212	21	Y	2	681
10-10	NO APIARY SITES IN DUNE SYSTEM.	9/30/87 - 9/30/99	0.1			BLM	MO-33	4212	21	Y	1	681
10-11	FILMING PERMITS ONLY ON WEEKDAYS.	9/30/87 - 9/30/99	0.1			BLM	MO-33	4212	21	Y	11	681

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10-12	LONG-TERM FILMING ONLY WHERE REC. USE NOT DISRUPTED.	9/30/87 - 9/30/99	0.1			BLM	MO-33	4212	21	Y	1	681
10-13	NO GEOTHERMAL LEASES IN GLAMIS/GECKO CLASS I.	9/30/87 - 9/30/99	0.1			BLM	GE-5	4113	16	Y	1	376
10-14	FOLLOW GLAMIS/DUNES GEOTHERMAL EA DECISIONS.	9/30/87 - 9/30/99	0.1			BLM	GE-5	4113	16	Y	1	376
LEVEL 2												
1-5	POST DIRECTIONS TO ALTERNATE CAMPSITES.	9/30/87	0.3	$1,200		BLM	RE-36	4333	10	Y	1	611
1-6	MAP ALL CAMPING AREAS.	9/30/88	0.1			BLM	RE-36	4333	12	Y	0.2	346
1-7	ENFORCE "FIRST-COME FIRST-SERVED".	9/30/87 - 9/30/99	SEE 7-4	$600		BLM	RE-36	4333	12	Y	1	611
1-8	SOUTH OGILBY REMAINS "LIMITED"	9/30/87	0.0			BLM	RE-36	4333	08	Y	1	286
1-9	SEC. 6 MAMMOTH TO CLASS I AND CLASS L.	9/30/88	0.2	$300		BLM	RE-36	4333	08	Y	1	286
1-10	SEC. 6 MAMMOTH TO "LIM" AND "OPEN."	9/30/88	0.2	$300		BLM	RE-36	4333	08	Y	1	286
1-11	PROVIDE HIKING INFORMATION	9/30/88	0.1			BLM	RE-36	4333	12	Y	0.2	346
2-5	CO-SPONSOR SAFETY WORKSHOPS.	9/30/87 - 9/30/99	0.2			BLM	RE-36	4333	12	Y	1	691
2-6	ENFORCE SAFETY LAWS AT COMP. EVENTS.	9/30/87 - 9/30/99	SEE 7-4			BLM	RE-13 RE-36	4333	11	Y	5	476
2-7	GREEN STICKER CHECKPOINTS.	9/30/87 - 9/30/99	SEE 7-4			BLM	RE-36	4333	12	Y	5	476
2-8	ESTABLISH WHIP MAST RULE	9/30/87	0.2	$600		BLM	RE-36	4333	10	Y	1	271

NUMBER	MANAGEMENT PRESCRIPTION ACTION	DATE PROJECTED COMPLETE	PROJECTED WORK MONTHS	PROJECTED MATERIAL COST	CONTRACT VALUE	FUNDING SOURCE	ADMINISTRATIVE PURPOSES DEC. NUM.	SUB-ACT.	PROG. ELEM.	FMS RPT	UNIT NUM.	UNIT LABEL
2-9	POST SIGNS - WHIP MASTS.	11/1/87	0.2	$800		BLM	RE-36	4333	10	Y	1	611
2-10	ENFORCE WHIP MASTS.	11/1/87 - 9/30/99	SEE 7-4			BLM	RE-36	4333	12	Y	10	476
2-11	ESTABLISH 15 M.P.H. SPEED LIMIT ON SAND HIGHWAYS.	9/30/87	0.1	$600		BLM	RE-36	4333	10	Y	1	271
2-12	ESTABLISH 15 M.P.H. SPEED LIMIT ALONG RAILROAD.	9/30/89	0.1	$600		BLM	RE-36	4333	10	Y	1	271
2-13a	POST 15 M.P.H. SIGNS ALONG SAND HIGHWAYS.	11/1/87	0.2	$800		BLM	RE-36	4333	10	Y	1	611
2-13b	POST 15 M.P.H. SIGNS ALONG RAILROAD.	11/1/89	0.1	$200		BLM	RE-36	4333	10	Y	1	611
2-13c	POST 15 M.P.H. SIGNS - CAMP AREAS.	11/1/87	0.2	$800		BLM	RE-36	4333	10	Y	1	611
2-14	ENFORCE 15 M.P.H. SPEED LIMIT.	11/1/87 - 9/30/99	SEE 7-4			BLM	RE-36	4333	12	Y	5	476
2-15	POST RAILROAD ROAD AS "HIGHWAY", EST. OHV CORRIDOR	11/1/89	0.1	$1,500		BLM	RE-36	4333	10	Y	1	611
2-16	ESTABLISH NO GLASS BEVERAGE CONTAINERS RULE.	9/30/87	0.1	$600		BLM	RE-36	4333	10	Y	1	271
2-17	POST SIGNS - NO GLASS BEVERAGE CONTAINERS.	11/1/87	0.2	$800		BLM	RE-36	4333	13	Y	1	611
2-18	COORDINATE WITH CALTRANS, CHP ON I-8 CROSSINGS.	1/1/88	0.2	$600		BLM	RE-36	4333	10	N	1	246
2-19	STATION EMTs AT CAHUILLA RNGR STA. 80 DAYS/YR.	4/30/88 - 9/30/99	SEE 7-14 1.0	$1,200		DPR-OHV BLM	RE-36 RE-36	7123 4333	10 12	Y Y	B0 22	476 476

MANAGEMENT PRESCRIPTION NUMBER	ACTION	DATE PROJECTED COMPLETE	PROJECTED WORK MONTHS	PROJECTED MATERIAL COST	CONTRACT VALUE	FUNDING SOURCE	ADMINISTRATIVE PURPOSES DEC. NUM.	SUB-ACT.	PROG. ELEM.	FMS RPT	UNIT NUM.	UNIT LABEL
2-20	PREP. INTERAGENCY SAFETY PLAN.	9/30/88	0.5	$100		BLM	RE-36	4333	10	Y	1	531
3-5	POST CLOSURES WITH MAXIMUM INTERVAL OF 1/8 MI.	9/30/89	0.7	$3,500		BLM	RE-36	4333	13	Y	1	611
3-6	IMPLEMENT PLANK ROAD ACEC PLAN.	9/30/87		$30,000	$32,000	DPR-OHV DPR-OHV	CR-1 CR-1	7123 7123	10 10	Y Y	1 1	361 206
	NOTE: BLM'S IMPLEMENTATION OF THIS PLAN IS TRACKED SEPARATELY.											
3-7	PREPARE HMP IN FY 87.	9/30/87	1.3	$600		BLM	WL-3	4351	10	Y	1	511
3-8	COMPLETE LEVEL 2 BASELINE STUDIES.	9/30/89	5.0	$1,200	$28,000	DPR-OHV	WL-20	7123	10	Y	1	361
3-9	CONDUCT LEVEL 2 MONITORING STUDIES.	9/30/89 9/30/91 9/30/93 9/30/95 9/30/97 9/30/99	2.0	$1,200	$40,000	DPR-OHV	WL-20	7123	10	Y	1	451
3-10	CONDUCT VISITOR COUNT OVERFLIGHTS.	9/30/88 9/30/91 9/30/94 9/30/97	1.5		$25,000	BLM	RE-36	4333	12	Y	1	441
3-11a	INSTALL GECKO ROAD TRAFFIC COUNTER.	9/30/88	0.1	$900		BLM	RE-36	4333	12	Y	1	451
3-11b	INSTALL GRAYS WELL ROAD TRAFFIC COUNTER	9/30/88	0.1	$900		BLM	RE-36	4333	12	Y	1	451
3-11c	INSTALL OGILBY TRAFFIC COUNTER.	9/30/88	0.1	$900		BLM	RE-36	4333	12	Y	1	451
3-11d	INSTL SOUTH GLAMIS TRAFFIC COUNTER.	9/30/88	0.1	$900		BLM	RE-36	4333	12	Y	1	451
3-11e	INSTL GORDONS WELL TRAFFIC COUNTER.	9/30/88	0.1	$900		BLM	RE-36	4333	12	Y	1	451
3-12	MONITOR TRAFFIC COUNTERS.	9/30/88 - 9/30/99	0.4			BLM	RE-36	4333	12	Y	1	451
4-3	INCLUDE WSA THEME IN INTERPRETATIVE SIGNS.	9/30/87	0.1			BLM	WI-9	4332	10	Y	1	611

MANAGEMENT PRESCRIPTION NUMBER	ACTION	DATE PROJECTED COMPLETE	PROJECTED WORK MONTHS	PROJECTED MATERIAL COST	CONTRACT VALUE	FUNDING SOURCE	ADMINISTRATIVE PURPOSES DEC. NUM.	SUB-ACT.	PROG. ELEM.	FMS RPT	UNIT NUM.	UNIT LABEL
4-4	SHOW WSA BOUNDARIES ON BROCHURE MAP.	9/30/88	SEE 5-10									
4-5	INSTALL BARRICADE ON OLD ALGODONES CORRIDOR.	9/30/87	0.2	$800		BLM	WI-9	4332	10	Y	1	426
4-6	FENCE THE CLASS I/ CLASS C BOUNDARY NEAR GLAMIS.	9/30/88	0.2		$8,000	BLM	WI-9	4333	10	Y	1	301
5-3	EMPHASIZE RESOURCE PROTECTION AND SAFETY THEMES.	ONGOING										
5-4	ESTBL OSBORN PARK INTERPRETATIVE SITE.	6/1/88	SEE 5-5									
5-5	CONVERT OSBORN PARK TO DAY - USE ONLY.	6/1/88	0.2	$800		BLM	RE-36	4333	10	Y	1	271
5-6a	INSTALL PLANK ROAD CULTURAL RESOURCE PROTECTION SIGN.	9/30/86	0.1	$1,000		E. CLAMPUS VITUS	CR-6	7122	10	N	2	356
5-6b	INSTALL OSBORN RESOURCE PROTECTION SIGN.	9/30/88	0.1	$600		DPR-OHV	RE-36	7123	10	Y	1	356
5-6c	INSTL ROADRUNNER RESOURCE PROTECTION SIGN.	9/30/88	0.1	$600		DPR-OHV*	RE-36	7123	10	Y	1	356
5-7a	INSTL ROADRUNNER OHV SAFETY SIGN.	9/30/88	0.1	$600		DPR-OHV*	RE-36	7123	10	Y	1	356
5-7b	INSTALL GECKO OHV SAFETY SIGN.	9/30/88	0.1	$600		DPR-OHV*	RE-36	7123	10	Y	1	356
5-8a	INSTALL GECKO BROCHURE BOX.	9/30/88	SEE 5-8b	$50		BLM	RE-36	4333	12	N	1	351
5-8b	INSTL ROADRUNNER BROCHURE BOX.	9/30/88	0.1	$50		BLM	RE-36	4333	12	N	1	351
5-8c	INSTALL OSBORN BROCHURE BOX	9/30/88	SEE 5-8b	$50		BLM	RE-36	4333	12	N	1	351
5-9	INSTALL OSBORN MULTIPLE-USE SIGN.	9/30/88	0.1	$600		BLM	RE-36	4333	12	N	1	611

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5-10	UPDATE BROCHURE.	9/30/88	0.5 (SEE 5-1 FOR BLM COSTS)	$600		DPR-OHV*	RE-36	7123	10	Y	0.6	346
5-11	OPEN CAHUILLA RNGR STATION EVERY WINTER WEEKEND.	11//1/87- 9/30/99	SEE 2-19									
5-12	DISTRIBUTE BROCHURES VIA DUNES PATROL, REC. TECHS.	11/1/87 - 9/30/99	SEE 7-13									
5-13	USER CONTACT BY DUNES PATROL, REC. TECHS.	11/1/87 - 9/30/99	SEE 7-13									
5-14	REC. TECHS. PRESENT EVENING PROGRAMS.	4/30/88 - 9/30/99	0.4			DPR-OHV*	RE-36	7123	10	Y	3	351
6-1	CONSTRUCT ROADRUNNER CAMPGROUND.	5/1/88	2.0		$700,000	DPR-OHV*	RE-36	7123	10	Y	1	221
6-2a	MAINTAIN GECKO TRASH STATION.	4/30/87 - 4/30/99	SEE 7-25		$10,000	DPR-OHV*	RE-36	7123	10	Y	1	411
6-2b	ADD ROADRUNNER TRASH STATION.	4/30/89 - 4/30/99	SEE 7-25		$10,000	DPR-OHV*	RE-36	7123	10	Y	1	411
6-3a	CONSTRUCT DUNES PATROL STORAGE BLG.	5/1/88	0.5		$45,000	DPR-OHV*	RE-36	7123	10	Y	1	221
6-3b	INSTALL TWO STAFF TRAILER SPACES AT CAHUILLA RNGR. STA.	5/1/88	0.5		$45,000	DPR-OHV*	RE-36	7123	10	Y	1	221
6-4	PAVE CAHUILLA RNGR. STA. PUBLIC PARKING.	5/1/88	0.2		$25,000	DPR-OHV*	RE-36	7123	10	Y	1	221
6-11	MAINTAIN GLAMIS TRASH STATION.	4/30/87 - 4/30/91	SEE 7-25		$10,000	DPR-OHV*	RE-36	7123	10	Y	1	221
6-12	GRADE DIRT ROAD SOUTH OF GLAMIS.	9/30/89 - 9/34/99	0.3		$8,200	DPR-OHV	RE-36	7123	10	Y	1	416
6-20	COMPLETE BUTTERCUP ROAD.	5/1/88	2.0		$700,000	DPR-OHV*	RE-36		10	Y	1	226
6-21	REPAIR GRAYS WELL ROAD.	12/31/89	4.0		$700,000	DPR-OHV	RE-36	7123	10	Y	1	416

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6-22	CONSTRUCT CAMPING PADS ALONG GRAYS WELL ROAD.	12/31/89	2.0		$160,000	DPR-OHV	RE-36	7123	10	Y	2	221
6-23a	ESTABLISH BUTTERCUP TRASH STATION.	4/30/88 - 4/30/99	SEE 7-25		$10,000	DPR-OHV*	RE-36	7123	10	Y	1	411
6-23b	ESTABLISH GRAYS WELL TRASH STATION.	4/30/88 - 4/30/99	SEE 7-25		$10,000	DPR-OHV*	RE-36	7123	10	Y	1	411
6-23c	ESTABLISH GORDONS WELL TRASH STATION.	4/30/88 - 4/30/99	SEE 7-25		$10,000	DPR-OHV*	RE-36	7123	10	Y	1	411
7-3	ADD ONE BLM RANGER	6/1/87 - 9/30/99	SEE 7-4	$4,700		BLM	RE-36	4333	12	Y	5	476
7-4	ADD 360 HOURS OF BLM RANGER PATROL TIME.	9/30/88 - 9/30/99	0.2			BLM	WL-20	4352	12	N		476
			0.2			BLM	WI-9	4332	10	Y		476
			1.5			BLM	RE-36	4333	12	Y		476
			0.2			BLM	CR-1	4331	13	N		476
7-12	HIRE TWO SEASONAL REC. TECHS.	4/30/88 - 4/30/99	8.0	$24,000		DPR-OHV*	RE-36	7123	10	N	1	656
7-13	ALLOCATE 1,200 HOURS OF REC. TECH TIME.	4/30/88 - 4/30/92	8.0			DPR-OHV*	RE-36	7123	10	Y	50	606
7-14	HIRE FOUR INTERMITTENT RECH. TECHS.	4/30/88 - 4/30/99	5.0	$4,000		DPR-OHV*	RE-36	7123	10	Y	50	606
7-24	ADD ONE SEASONAL MAINT. WORKER.	4/30/88 - 4/30/99	SEE 7-25	$13,000		DPR-OHV*	RE-36	7123	10	Y	2	411
7-25	ALLOCATE 1,200 HOURS OF MAINT. TIME.	4/30/88 - 4/30/90			$3,500	BLM	RE-36	4712	11	Y	1	381
			1.0		$4,700	BLM	RE-36	4712	11	Y	2	411
				$3,500		BLM	RE-36	4712	11	Y	1	612
			8.0		$27,000	DPR-OHV*	RE-36	7123	10	Y	2	411
7-32	ESTABLISH DUNES PATROL.	1/1/86 - 9/30/99	2.0			DPR-OHV*	RE-36	7123	10	Y	200	476
7-33	RECRUIT VOLUNTEERS.	9/30/86 - 9/30/99	0.5			BLM	RE-36	4333	10	N	1	246
8-4	CONSIDER CONCESSION PERMITS.	1/1/87 - 9/30/99	0.2	$200		BLM	MO-33	4212	21	Y	20	681

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9-1	ACQUIRE GLAMIS ROAD EASEMENT.	9/30/89	4.0	$20,000		DPR-OHV	RE-36	7123	10	Y	2	106
9-2	ACQUIRE OSBORN PARK.	6/1/88	SEE 5-4									
9-3	ACQUIRE GRAYS WELL ROAD.	9/30/89	0.3			BLM	RE-36	4333	10	Y	1	106
9-8a	ACQUIRE SEC. 36 (PARTIAL), T. 13 S., R. 17 E.	5/1/88	0.3	(EXCHANGE)		BLM	MO-33	4212	12	Y	1	111
9-8b	ACQUIRE SEC. 36, T. 13 S., R. 17 1/2 E.	5/1/88	0.3	(EXCHANGE)		BLM	MO-33	4212	12	Y	1	111
9-8c	ACQUIRE SEC. 16 T. 14 S., R. 18 E.	5/1/88	0.3	(EXCHANGE)		BLM	MO-33	4212	12	Y	1	111
9-8d	ACQUIRE SEC. 36 T. 12 S., R. 16 E.	5/1/88	0.3	(EXCHANGE)		BLM	MO-33	4212	12	Y	1	111
9-9	ACQUIRE NE 1/4 SEC. 36, T. 13 S., R. 17 E.	5/1/88	0.3	(EXCHANGE)		BLM	MO-33	4212	13	Y	1	111
9-10a	ACQUIRE SEC. 36, T. 12 S., R. 16 E.	5/1/88	0.3	(EXCHANGE)		BLM	MO-33	4212	12	Y	1	111
9-10b	ACQUIRE SEC. 36, T. 17 S., R. 17 E.	5/1/88	0.3	(EXCHANGE)		BLM	MO-33	4212	12	Y	1	111
9-10c	ACQUIRE SEC. 36, T. 14 S., R. 18 E.	5/1/88	0.3	(EXCHANGE)		BLM	MO-33	4212	12	Y	1	111
LEVEL 3												
1-12	VEHICLE CORRIDOR-COACHELLA CANAL.	9/30/90	0.5	$20,000		DPR - OHV	RE-36	7123	10	Y	1	611
1-13	CONSTRUCT HIKER/ EQUESTRIAN TRAILHEAD.	9/30/91	2.0	$6,000	$4,000	BLM	RE-36	2120	10	Y	1	221
2-21	INSTALL ORIENTATION POSTS.	9/30/92	3.0	$10,000		DPR - OHV	RE-36	7123	10	Y	4	611
3-13	COMPLETE LEVEL 3 BASELINE STUDIES.	9/30/90	2.0	$1,200	$5,200	DPR-OHV	WL-20	7123	10	Y	1	361

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3-14	CONDUCT LEVEL 3 MONITORING STUDIES.	9/30/91 9/30/93 9/30/95 9/30/97 9/30/99	1.0		$6,000	DPR-OHV	WL-20	7123	10	Y	1	451
3-15	POST CLOSURES WITH MAXIMUM INTERVAL OF 300 FT.	9/30/92	0.7	$3,500		BLM	RE-36	4333	13	Y	1	611
4-7	INCLUDE WSA THEME IN INTERPRETATIVE SIGNS.	9/30/91	0.1			BLM	WI-9	4332	10	Y	1	611
5-15	PREPARE SENSITIVE RESOURCES BROCHURE.	9/30/90	0.5 0.5 0.5	$1,200 $1,200 $2,500		BLM BLM BLM	WL-9 CR-6 RE-36	4352 4331 4333	12 13 12	N N Y	 1	 351
5-16a	INSTALL SOUTH GLAMIS RESOURCE PROTECTION SIGN.	9/30/91	0.1	$600		DPR-OHV	RE-36	7123	10	Y	1	356
5-16b	DUNE BUGGY FLATS RES. PROT. SIGN.	9/30/91	0.1	$600		DPR-OHV	RE-36	7123	10	Y	1	356
5-17a	INSTALL GLAMIS OHV SAFETY SIGNS (2).	9/30/91	0.1	$1,200		DPR-OHV	RE-36	7123	10	Y	1	356
5-17b	INSTALL BUTTERCUP OHV SAFETY SIGN.	9/30/91	0.1	$600		DPR-OHV	RE-36	7123	10	Y	1	356
5-17c	INSTALL GRAYS WELL OHV SAFETY SIGN.	9/30/91	0.1	$600		DPR-OHV	RE-36	7123	10	Y	1	356
5-17d	DUNE BUGGY FLATS OHV SAFETY SIGN.	9/30/91	0.1	$600		DPR-OHV	RE-36	7123	10	Y	1	356
5-18a	INSTL WEST GLAMIS BROCHURE BOX.	9/30/92	0.3	$50		BLM	RE-36	4333	12	Y	1	351
5-18b	INSTL SOUTH GLAMIS BROCHURE BOX.	9/30/92	SEE 5-18a	$50		BLM	RE-36	4333	12	Y	1	351
5-18c	INSTALL BUTTERCUP BROCHURE BOX.	9/30/92	SEE 5-18a	$50		BLM	RE-36	4333	12	Y	1	351
5-18d	INSTALL GRAYS WELL BROCHURE BOX.	9/30/92	SEE 5-18a	$50		BLM	RE-36	4333	12	Y	1	351
5-18e	DUNE BUGGY FLATS BROCHURE BOX.	9/30/92	SEE-5-18a	$50		BLM	RE-36	4333	12	Y	1	351

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6-5	CONST SECOND PUBLIC RESTROOM - CAHUILLA RNGR. STA.	9/30/90	1.0	$1,200	$12,000	DPR-OHV	RE-36	7123	10	Y	1	221
6-6	PROVIDE CAHUILLA R.S PUBLIC PHONE.	9/30/90	1.0	$1,200	$10,000	DPR-OHV	RE-36	7123	10	Y	1	221
6-7	CONSTRUCT NEW GECKO PARKING PADS.	9/30/91	1.0	$1,200	$100,000	DPR-OHV	RE-36	7123	10	Y	1	221
6-8	GECKO VENDOR PAD.	9/30/91	1.0	$1,200	$40,000	BLM	MO-33	2120	10	Y	1	221
6-13	CONSTRUCT SOUTH GLAMIS TOILETS.	9/30/92	2.0	$1,200	$235,000	DPR-OHV	RE-36	7123	10	Y	2	221
6-14	CONST WEST GLAMIS ACCESS RAMP.	9/30/90	2.0	$1,200	$75,000	DPR-OHV	RE-36	7123	10	Y	1	221
6-15	CONSTRUCT WEST GLAMIS TOILETS.	9/30/92	1.0	$1,200	$120,000	DPR-OHV	RE-36	7123	10	Y	1	221
6-16	INSTALL WEST GLAMIS TRASH STATION.	9/30/91 - 9/30/99	SEE 7-28		$10,000	DPR-OHV	RE-36	7123	10	Y	1	411
6-17	INSTALL SOUTH GLAMIS TRASH STAS.	9/30/91 - 9/30/99	SEE 7-28		$20,000	DPR-OHV	RE-36	7123	10	Y	1	411
6-24	BUTTERCUP WATER.	9/30/91	1.0	$1,200	$35,000	DPR-OHV	RE-36	7123	10	Y	1	221
6-25	PROVIDE BUTTERCUP PUBLIC PHONE.	9/30/90	1.0	$1,200	$5,900	DPR-OHV	RE-36	7123	10	Y	1	221
6-26	BUTTERCUP TOILETS.	9/30/91	1.0	$1,200	$120,000	DPR-OHV	RE-36	7123	10	Y	1	221
6-27	INSTALL GRAYS WELL TOILETS.	9/30/91	1.0	$1,200	$120,000	DPR-OHV	RE-36	7123	10	Y	1	221
6-28	CONSTR DUNE BUGGY FLATS ACCESS ROAD, BRIDGE.	9/30/92	3.0	$4,700	$1,200,000	DPR-OHV	RE-36	7123	10	Y	1	226
6-29	CONSTR DUNE BUGGY FLATS TOILETS.	9/30/93	1.0	$1,200	$120,000	DPR-OHV	RE-36	7123	10	Y	1	221
7-5	ADD ONE BLM RANGER.	9/30/92 - 9/30/99	SEE 7-6	$4,700		BLM	RE-36	4333	12	Y	50	476
7-6	ADD 800 HOURS OF BLM RANGER PATROL TIME.	9/30/92 - 9/30/99	1 1 2			BLM BLM BLM	WL-20 WI-9 RE-36	4352 4332 4333	12 10 12	N Y Y	10 10 20	476 476 476

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7-6 (continued)			1			BLM	CR-1	4331	13	N	10	476
7-15	ADD TWO SEASONAL REC. TECHS.	9/30/92 - 9/30/99	8.0	$24,000		DPR-OHV	RE-36	7123	10	Y	50	606
7-16	ALLOCATE 2,400 HOURS OF REC. TECH. TIME.	9/30/92 - 4-30/96	16.0			DPR-OHV	RE-36	7123	10	Y	50	606
7-21	ADD ONE OUTDOOR RECREATION PLANNER	9/30/90 - 9/30/99	5.0	$4,000		BLM	RE-36	4333	11	Y	300	6B6
7-26	ADD ONE FULL-TIME MAINTENANCE WORKER.	9/30/92 - 9/30/99	7.0	$6,000		BLM BLM BLM BLM	RE-36 RE-36 RE-36 RE-36	4712 4712 4712 4712	11 11 11 11	Y Y Y Y	1 1 1 1	381 411 416 612
7-27	ADD ONE SEASONAL MAINT. WORKER.	9/30/91 - 9/30/99	SEE 7-2B	$13,000		DPR-OHV	RE-36	7123	10	Y	2	411
7-2B	ALLOCATE 2,600 HOURS OF MAINTENANCE TIME.	9/30/91 - 9/30/96	16.0 1.0 2.0 1.0	 $5,900	$40,000 $5,900 $14,100 	DPR-OHV BLM BLM BLM	RE-36 RE-36 RE-36 RE-36	7123 4712 4712 4712	10 11 11 11	Y Y Y Y	2 1 1 1	411 3B1 411 612
7-34	EXPAND DUNES PATROL TO BUTTERCUP.	9/30/92 - 9/30/99	2.0	$12,000		DPR-OHV BLM	RE-36 RE-36	7123 4333	10 12	Y Y	100 15	476 476
8-5	DESIGNATE VENDOR AREAS.	9/30/91	1.0	$900		BLM	RE-36	4333	11	Y	20	6B6
B-6	CONSIDER CONCESSION LEASES.	9/30/90	2.0	$1,200		BLM	RE-36	4333	11	Y	1	376
8-7	DESIGNATE GRAYS WELL CONCESSION ZONE.	9/30/91	1.0	$1,800		BLM	RE-36	4333	11	Y	1	376
9-4	HIKER TRAILHEAD PERMIT.	1/30/91	1.0	$600		BLM	RE-36	4333	10	Y	1	106
9-5	DUNE BUGGY FLATS CANAL BRIDGE PERMIT.	9/30/91	1.0	$600		BLM	RE-36	4333	10	Y	1	106
9-11	ACQUIRE SECS. 5, 9, 15, 16, 17, T. 12 S., R. 16 E.	9/30/93	2.0	(EXCHANGE)		BLM	MO-33	4212	13	Y	1	111
9-12	ACQUIRE SEC. 16, T. 13 S., R. 17 E.	9/30/93	2.0	(EXCHANGE)		BLM	MO-33	4212	24	Y	1	116

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LEVEL 4												
3-16	CONDUCT LEVEL 4 MONITORING STUDIES.	SEE 3-9 AND 3-14										
3-17	INSTL MAMMOTH WASH TRAFFIC COUNTER.	9/30/96	0.1	$900		BLM	RE-36	4333	12	Y	1	451
5-19	INSTALL MAMMOTH WASH BROCHURE BOX.	9/30/96	0.1	$50		BLM	RE-36	4333	12	Y	1	351
5-20	INSTALL MAMMOTH OHV SAFETY SIGNS.	9/30/96	0.1	$600		DPR-OHV	RE-36	7123	10	Y	1	356
5-21	MAMMOTH RESOURCE PROTECTION SIGNS.	9/30/96	0.1	$600		BLM	RE-36	4333	10	Y	1	356
6-9	ADD TOILETS AT GECKO ROAD.	9/30/94	1.0	$1,200	$240,000	DPR-OHV	RE-36	7123	10	Y	2	221
6-10	INSTALL GECKO DUMP STATION.	9/30/95	1.0	$1,200	$100,000	DPR-OHV	RE-36	7123	10	Y	1	221
6-18	ADD TOILETS SOUTH GLAMIS.	9/30 95	1.0	$1,200	$240,000	DPR-OHV	RE-36	7123	10	Y	2	221
6-19	INSTALL GLAMIS DUMP STATION.	9/30/95	1.0	$1,200	$100,000	DPR-OHV	RE-36	7123	10	Y	1	221
6-30	INSTALL BUTTERCUP DUMP STATION.	9/30/95	1.0	$1,200	$100,000	DPR-OHV	RE-36	7123	10	Y	1	221
6-34	EXTEND MONTGOMERY ROAD.	9/30/95	6.0	$4,700	$2,350,000	DPR-OHV	RE-36	7123	10	Y	1	226
6-35	CONSTRUCT MAMMOTH WASH CAMPER PARKING.	9/30/96	3.0	$1,200	$75,000	DPR-OHV	RE-36	7123	10	Y	1	221
6-36	MAMMOTH TOILETS.	9/30/96	2.0	$1,200	$120,000	DPR-OHV	RE-36	7123	10	Y	1	221
6-37	INSTALL MAMMOTH TRASH STATION.	4/30/97 - 4/30/99	SEE 7-30		$12,000	DPR-OHV	RE-36	7123	10	Y	1	411
6-38	PROVIDE MAMMOTH WASH PUBLIC PHONE.	9/30/96	1.0	$1,200	$12,000	DPR-OHV	RE-36	7123	10	Y	1	221
7-7	ADD ONE BLM RANGER.	9/30/95 - 9/30/99	SEE 7-8	$5,000		BLM	RE-36	4333	12	Y	31	476

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7-8	ADD 500 HOURS OF BLM RANGER PATROL TIME.	9/30/95 - 9/30/99	0.5			8LM	WL-20	4352	12	N	5	476
			1.0			BLM	WI-9	4332	10	Y	10	476
			1.0			BLM	RE-36	4333	12	Y	11	476
			0.5			BLM	CR-1	4331	5	N	5	476
7-17	ADD ONE SEASONAL REC. TECH.	9/30/96 - 4/30/99	4.0	$12,000		DPR-OHV	RE-36	7123	10	Y	25	606
7-18	ALLOCATE 3,000 HOURS OF REC. TECH. TIME.	9/30/96 - 4/30/99	20.0			DPR-OHV	RE-36	7123	10	Y	25	606
7-29	ADD ONE SEASONAL MAINT. WORKER.	9/30/96 - 9/30/99	SEE 7-30	$13,000		DPR-OHV	RE-36	4712	11	Y	1	381
7-30	ALLOCATE 2,900 HOURS OF MAINTENANCE TIME.	9/30/96 - 9/30/99	24.0		$48,000	DPR-OHV	RE-36	7123	10	Y	3	411
			1.0		$7,000	BLM	RE-36	4712	11	Y	1	381
			3.0		$21,000	BLM	RE-36	4712	11	Y	1	411
				$8,000		BLM	RE-36	4712	11	Y	1	612
7-35	EXPAND DUNES PATROL TO MAMMOTH WASH.	9/30/96 - 9/30/99		$6,000		DPR-OHV	RE-36	7123	10	Y	50	476
			1.0			BLM	RE-36	4333	12	Y	10	476
8-8	DESIGNATE GECKO CONCESSION ZONE.	9/30/95	1.5	$2,400		8LM	RE-36	4333	11	Y	1	376
8-9	DESIGNATE SOUTH GLAMIS CONCESSION ZONE.	9/30/95	1.5	$2,400		BLM	RE-36	4333	11	Y	1	376
8-10	DESIGNATE MAMMOTH CONCESSION ZONE.	9/30/96	2.0	$3,000		8LM	RE-36	4333	11	Y	1	376
9-6	ACQUIRE MONTGOMERY ROAD EASEMENT.	9/30/94	8.0	$10,000		DPR-OHV	RE-36	7123	10	Y	2	106
9-13a	ACQUIRE SEC. 36, T. 14 S., R. 18 E.	9/30/96	1.5	(EXCHANGE)		8LM	MO-33	4212	24	Y	1	116
9-13b	ACQUIRE SECS. 28, 33, 34, T. 15 S., R. 20 E.	9/30/96	4.0	(EXCHANGE)		BLM	MO-33	4212	24	Y	1	116
9-13c	ACQUIRE SEC. 16, T. 15 S., R. 19 E.	9/30/96	2.0	(EXCHANGE)		BLM	MO-33	4212	24	Y	1	116

MANAGEMENT PRESCRIPTION NUMBER	ACTION	DATE PROJECTED COMPLETE	PROJECTED WORK MONTHS	PROJECTED MATERIAL COST	CONTRACT VALUE	FUNDING SOURCE	ADMINISTRATIVE PURPOSES DEC. NUM.	SUB-ACT.	PROG. ELEM.	FMS RPT	UNIT NUM.	UNIT LABEL
LEVEL 5												
3-18	MAINTAIN MONITORING STUDIES.	SEE 3-9 AND 3-14.										
6-31	EXTEND GRAYS WELL ROAD WEST.	9/30/98	6.0	$6,000	$2,350,000	DPR-OHV	RE-36	7123	10	Y	1	451
6-32	DESIGNATE GORDONS WELL OVERPASS FOR OHV USE.	9/30/98	3.0			BLM	RE-36	4333	10	N	1	246
6-33	DESIGNATE OHV CORRIDOR OVER I-8 AND ALL-AMERICAN CANAL.	9/30/98		$12,000		DPR-OHV	RE-36	7123	10	Y	1	611
7-9	ADD ONE BLM RANGER.	9/30/98 - 9/30/99	SEE 7-10	$5,000		BLM	RE-36	4333	12	Y	31	476
7-10	ADD 500 HOURS OF BLM PATROL TIME.	9/30/98 - 9/30/99	0.5			BLM	WL-20	4352	12	N	5	476
			1.0			BLM	WI-9	4332	10	Y	10	476
			1.0			BLM	RE-36	4333	12	Y	11	476
			0.5			BLM	CR-1	4331	13	N	5	476
9-7	GRAYS WELL BRIDGE PERMIT.	9/30/97	1.0	$600		BLM	RE-36	4333	10	Y	1	106

B. Cost Estimates

Table 9 presents five separate cost estimates, one for each funding level. The estimate for each level is the complete cost of implementation of that level. The totals for each level should not be added, because the estimate for each level already includes the cost of all lower levels. The total cost for all prescriptions is represented by the Level 5 total.

The cost estimates are entirely in 1987 dollars. Inflation is not considered. Actual costs will therefore be higher, since inflation is expected to average 5% per year during the life of the plan.

The table identifies the proposed funding source and shows four broad categories of expenditures:

Operations and Maintenance (OM)

This includes all operations and maintenance costs, and includes the cost of Ranger patrol and signing in addition to costs of other operational staff.

Resource Protection (RP)

This includes all special resource protection projects, including baseline data and monitoring studies. However, it does not include costs of resource protection enforcement, which are shown in the OM totals.

Development (DEV)

This shows all costs related to facility development. Interpretive signing projects are considered development projects.

Acquisition (A)

This indicates all costs related to acquiring lands or easements within the recreation area.

State OHV projects currently funded are indicated by an asterisk (*).

TABLE 9 ESTIMATED PLAN COST BY YEAR AT EACH FUNDING LEVEL

LEVEL 1

YEAR	FUNDING SOURCE	COST	TYPE
1987	BLM	$ 81,550	OM
1988	BLM	$ 70,500	OM
1989	BLM	$ 66,150	OM
1990	BLM	$ 70,500	OM
1991	BLM	$ 66,150	OM
1992	BLM	$ 66,150	OM
1993	BLM	$ 70,500	OM
1994	BLM	$ 66,150	OM
1995	BLM	$ 66,150	OM
1996	BLM	$ 70,500	OM
1997	BLM	$ 66,150	OM
1998	BLM	$ 66,150	OM
1999	BLM	$ 70,500	OM
LEVEL 1 TOTAL, 1987-1999:		$897,100	

LEVEL 2

YEAR	FUNDING SOURCE	COST	TYPE
1987	BLM	104,500	OM
	BLM	5,150	RP
	OHV*	20,000	OM
	OHV*	62,000	RP
	TOTAL	$191,650	
1988	BLM	106,550	OM
	BLM	44,000	RP
	BLM	1,500	DEV
	BLM	6,000	A
	OHV*	199,550	OM
	OHV*	1,531,400	DEV
	TOTAL	$1,888,750	
1989	BLM	104,150	OM
	BLM	1,000	RP
	BLM	750	A
	OHV*	216,650	OM
	OHV	87,900	RP
	OHV	875,000	DEV
	OHV	30,000	A
	TOTAL	$1,315,450	

LEVEL 2 (continued)

YEAR	FUNDING SOURCE	COST	TYPE
1990	BLM	100,200	OM
	BLM	1,000	RP
	OHV	216,650	OM
	TOTAL	$317,850	
1991	BLM	95,850	OM
	BLM	29,750	RP
	OHV	216,650	OM
	OHV	46,200	RP
	TOTAL	$388,450	
1992	BLM	95,850	OM
	BLM	1,000	RP
	OHV	216,650	OM
	TOTAL	$313,500	
1993	BLM	100,200	OM
	BLM	1,000	RP
	OHV	216,650	OM
	OHV	46,200	RP
	TOTAL	$364,050	
1994	BLM	95,850	OM
	BLM	29,750	RP
	OHV	216,650	OM
	TOTAL	$343,250	
1995	BLM	95,850	OM
	BLM	1,000	RP
	OHV	216,650	OM
	OHV	46,200	RP
	TOTAL	$359,700	
1996	BLM	100,200	OM
	BLM	1,000	RP
	OHV	216,650	OM
	TOTAL	$317,850	

LEVEL 2 (continued)

YEAR	FUNDING SOURCE	COST	TYPE
1997	BLM	95,850	OM
	BLM	29,750	RP
	OHV	216,650	OM
	OHV	46,200	RP
	TOTAL	$388,450	
1998	BLM	95,850	OM
	BLM	1,000	RP
	OHV	216,650	OM
	TOTAL	$313,500	
1999	BLM	100,200	OM
	BLM	1,000	RP
	OHV	216,650	OM
	OHV	46,200	RP
	TOTAL	$364,050	
LEVEL 2 TOTAL, 1987-1999		$6,866,500	

LEVEL 3

YEAR	FUNDING SOURCE	COST	TYPE
1987-1989	(SAME AS FOR LEVEL 2)		
1990	BLM	131,550	OM
	BLM	1,000	RP
	OHV	216,650	OM
	OHV	11,400	RP
	OHV	147,450	DEV
	TOTAL	$508,050	
1991	BLM	149,900	OM
	BLM	29,750	RP
	BLM	58,700	DEV
	OHV	292,650	OM
	OHV	54,700	RP
	OHV	499,000	DEV
	TOTAL	$1,084,700	

LEVEL 3 (continued)

YEAR	FUNDING SOURCE	COST	TYPE
1992	BLM	194,200	OM
	BLM	1,000	RP
	BLM	1,000	DEV
	OHV	373,650	OM
	OHV	1,587,100	DEV
	TOTAL	$2,156,950	
1993	BLM	193,300	OM
	BLM	1,000	RP
	BLM	10,000	A
	OHV	373,650	OM
	OHV	54,700	RP
	OHV	123,700	DEV
	TOTAL	$756,350	
1994	BLM	188,950	OM
	BLM	29,750	RP
	OHV	373,650	OM
	TOTAL	$592,350	
1995	BLM	188,950	OM
	BLM	1,000	RP
	OHV	373,650	OM
	OHV	54,700	RP
	TOTAL	$618,300	
1996	BLM	193,300	OM
	BLM	1,000	RP
	OHV	373,650	OM
	TOTAL	$567,950	
1997	BLM	188,950	OM
	BLM	29,750	RP
	OHV	373,650	OM
	OHV	54,700	RP
	TOTAL	$647,050	

LEVEL 3 (continued)

YEAR	FUNDING SOURCE	COST	TYPE
1998	BLM	188,950	OM
	BLM	1,000	RP
	OHV	373,650	OM
	TOTAL	$563,600	
1999	BLM	193,300	OM
	BLM	1,000	RP
	OHV	373,650	OM
	OHV	54,700	RP
	TOTAL	$622,650	

LEVEL 3 TOTAL, 1987-1999: $11,513,800

LEVEL 4

YEAR	FUNDING SOURCE	COST	TYPE
1987 - 1993	(SAME AS FOR LEVEL 3)		
1994	BLM	188,950	OM
	BLM	29,750	RP
	OHV	373,650	OM
	OHV	243,700	DEV
	OHV	30,000	A
	TOTAL	$866,050	
1995	BLM	212,500	OM
	BLM	1,000	RP
	OHV	373,650	OM
	OHV	54,700	RP
	OHV	2,924,500	DEV
	TOTAL	$3,566,350	

LEVEL 4 (continued)

YEAR	FUNDING SOURCE	COST	TYPE
1996	BLM	246,600	OM
	BLM	2,150	RP
	BLM	2,000	DEV
	BLM	18,750	A
	OHV	452,650	OM
	OHV	226,450	DEV
	TOTAL	$ 948,600	
1997	BLM	224,050	OM
	BLM	29,750	RP
	OHV	464,650	OM
	OHV	54,700	RP
	TOTAL	$773,150	
1998	BLM	224,050	OM
	BLM	1,000	RP
	OHV	464,650	OM
	TOTAL	$689,700	
1999	BLM	228,400	OM
	BLM	1,000	RP
	OHV	464,650	OM
	OHV	54,700	RP
	TOTAL	$748,750	
LEVEL 4 TOTAL, 1987-1999		$14,924,650	

LEVEL 5

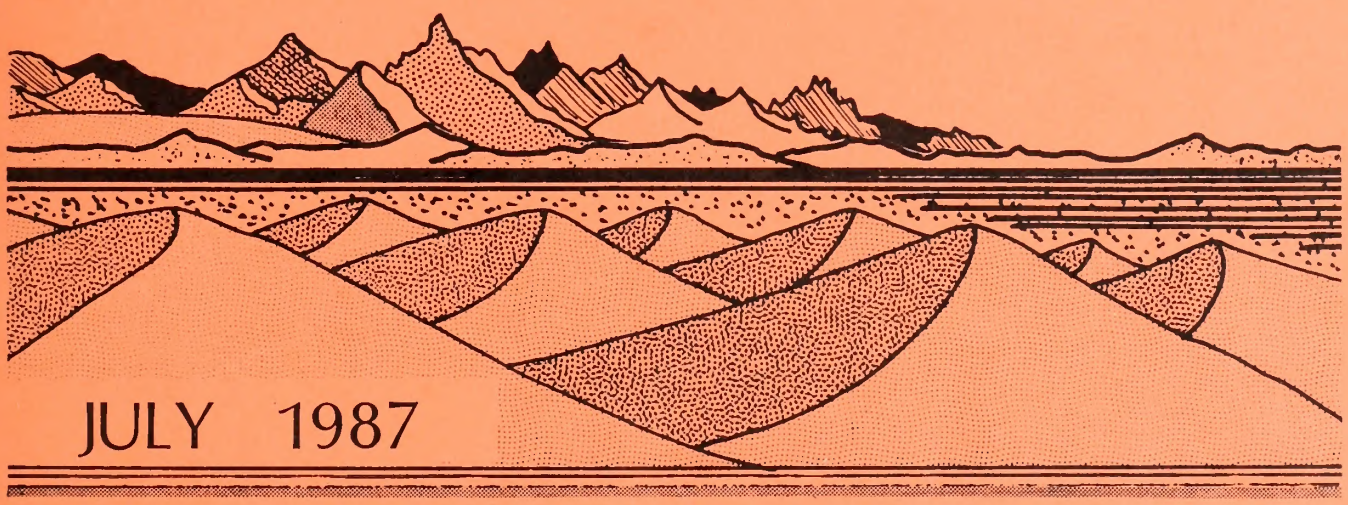
YEAR	FUNDING SOURCE	COST	TYPE
1987 -1996	(SAME AS LEVEL 4)		
1997	BLM	227,150	OM
	BLM	29,750	RP
	OHV	464,650	OM
	OHV	54,700	RP
	TOTAL	$776,250	

LEVEL 5 (continued)

YEAR	FUNDING SOURCE	COST	TYPE
1998	BLM	244,050	OM
	BLM	1,000	RP
	OHV	464,650	OM
	OHV	2,383,000	DEV
	TOTAL	$3,092,700	
1999	BLM	240,900	OM
	BLM	1,000	RP
	OHV	464,650	OM
	OHV	54,700	RP
	TOTAL	$761,250	
LEVEL 5 TOTAL, 1987-1999		$17,913,100	

ENVIRONMENTAL ASSESSMENT
for the

IMPERIAL SAND DUNES
RECREATION AREA MANAGEMENT PLAN



JULY 1987

Department of the Interior
BUREAU OF LAND MANAGEMENT
El Centro Resource Area, California

ENVIRONMENTAL ASSESSMENT
for the
Imperial Sand Dunes
RECREATION AREA MANAGEMENT PLAN

U.S. Department of the Interior
Bureau of Land Management
California Desert District
El Centro Resource Area

CA-067-87-34

Prepared by: Steven M. Nelson — 6/12/87

Lead Outdoor Recreation Planner — Date

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CHAPTER 1
Introduction

CHAPTER 1

INTRODUCTION

This Environmental Analysis (EA) presents possible environmental consequences of the proposed Imperial Sand Dunes Recreation Area Management Plan (RAMP) and three alternative management programs for the recreation area. This document is the first part of a two-phase environmental review process required by the National Environmental Policy Act of 1969. The purpose of this EA is to analyze the overall consequences of the proposed management program and alternatives. This document also presents means of mitigating impacts resulting from proposed facility development and recreation uses. Additional site-specific EAs will be prepared prior to implementation for individual development projects proposed by the plan.

The Recreation Area is located in east-central Imperial County, approximately 40 miles east of El Centro, 22 miles east of Brawley, and 20 miles west of Yuma, Arizona (see RAMP Map 1, Regional Location, page 2).

PURPOSE AND NEED FOR THE PROPOSED ACTION

The purpose of the Imperial Sand Dunes RAMP is to provide BLM managers with guidance in implementing provisions of the California Desert Plan within the recreation area (See RAMP Map 2, page 3). The RAMP is intended to translate the broad guidance of the Desert Plan into specific proposals which will be further developed through the site planning process. As such, the RAMP is intermediate in detail between the Desert Plan and individual site plans, which are prepared prior to the development of facilities.

The Recreation Element of the Desert Plan directs that planned recreation actions such as facility development, erection of signs, establishment of visitor services and resource protection programs, as well as measures to minimize environmental impacts, will be implemented primarily through the RAMP and site plan processes. In addition, nationwide Bureau of Land Management policy is to prepare RAMPs for all special recreation management areas such as the Imperial Sand Dunes.

The first RAMP for the Imperial Dunes was prepared in 1972. That plan predates the Desert Plan and is largely obsolete. The proposed RAMP is necessary to provide BLM with a strategy for utilizing the Desert Plan to meet the challenge of ever-increasing recreational demand while protecting sensitive resources in the dunes through the year 2000.

ISSUE IDENTIFICATION (Scoping)

The Council on Environmental Quality Regulations Implementing the National Environmental Policy Act (40 CFR Part 1501.7) and the BLM planning regulations (43 CFR 1610.4-1) require an early and open process for determining the scope of issues to be addressed and for identifying the significant issues related to a proposed action. Scoping determines in depth the scope and the significant issues to be analyzed in the EA and identifies and eliminates from detailed study insignificant issues or issues addressed in earlier environmental reviews. Scoping thus reduces the length of the EA and emphasizes the real alternatives and impacts of importance to be discussed. During this process, the scope and importance of issues related to the proposed action and alternatives were identified. Information obtained during the scoping process was one of the sources used to determine which impact topics would be addressed in detail in this EA. Additional purposes of the scoping process are to inform affected Federal, State, and local agencies and other interested parties about the proposed project, and to identify existing environmental reports and information related to the impact assessment.

The scoping process involved discussions with the public, and resource specialists and managers of BLM and other relevant agencies. Written comments were received and compiled as a result of news releases, mailings, and public meetings. This section outlines the steps taken by BLM for the scoping and public involvement process for the RAMP and EA.

ISSUE IDENTIFICATION PROCESS

The El Centro Resource Area conducted a series of four public planning workshops on the Imperial Sand Dunes in April 1985. The workshops were announced in a letter sent to 1,500 individuals, groups, and government agencies in California and Arizona, and were publicized through the news media. Attendance was as follows:

El Centro (April 15)	10
Yuma (April 16)	27
San Diego (April 17)	51
Riverside (April 22)	49
TOTAL	137

The objective of the workshops was to identify and prioritize management issues, concerns, and problems relating to the Imperial Sand Dunes. Meeting participants divided into workgroups of 10-15 persons each. Through a technique called "brainstorming," workgroup members identified as many issues, problems, and concerns as possible in a one-hour period. The objective was to identify ideas without taking time to

evaluate or criticize the ideas. Following the brainstorming sessions, group members ranked the issues using a numerical scoring method.

Written input was also solicited from those unable to attend the workshops. A total of 42 letters containing written comments on Imperial Sand Dunes management issues were received by April 30, 1985. Of the total responses, 31 came from individuals (23 from California, 8 from Arizona), 7 from organizations (5 from California, 2 from Arizona), and 4 from government agencies (3 from California State agencies, 1 from a Federal agency).

Following analysis of workshop results and the 42 letters on issues, a planning workbook was developed and sent in late May 1985 to all workshop participants and those who sent letters on issues. The purpose of the workbook was to solicit more detailed responses from those who had participated in the initial scoping process, and to seek specific suggestions on actions to resolve the issues.

Following analysis of the 33 workbook responses (26 from individuals, 2 from state agencies, and 5 from organizations), a list of environmental issues identified by the public was developed. BLM managers and staff reviewed the list and made some additions, mainly relating to specific plant or wildlife species and potential impacts to public land uses other than recreation. Of the 18 issues identified, 8 were selected for detailed analysis in the draft EA and 10 were dropped from further analysis. As a result of public comment on the draft EA, an additionl issue was added for detailed analysis in the final EA. The issues and rationale for selection or non-selection are presented in the following sections.

ISSUES SELECTED FOR ANALYSIS

The environmental issues identified for analysis in this EA as a result of the scoping process are presented below.

1. Impact on Off-Highway Vehicle (OHV) Recreation. OHV recreation is the major recreational use of the Imperial Sand Dunes in terms of numbers of participants. OHV recreation opportunities could benefit from many of the management actions proposed in the RAMP. Other actions could restrict or limit opportunities. The significance of these beneficial or adverse impacts is an issue for analysis in the EA.

2. Impact on General (non-OHV) Recreation. The lands of the recreation area are utilized for sightseeing, hunting, rockhounding, camping, and other general recreation activities. General recreation could benefit from many of the actions proposed in the RAMP. Other actions could limit opportunities. The significance of these beneficial or adverse impacts is an issue for analysis in the EA.

3. Impact on Wilderness Values. The recreation area contains two wilderness study areas (WSAs) which have been identified as having wilderness values of naturalness, solitude, opportunities for primitive recreation, and special resource characteristics. These values could be benefited or adversely affected by uses and actions that would occur under the proposed RAMP. The significance of these beneficial or adverse impacts is an issue for analysis in the EA.

4. Impact on Burro Mule Deer Habitat. The burro mule deer utilizes habitat within the recreation area for shelter, browsing, and fawning. Water sources have been developed at seven locations for use by the deer. The deer habitat could be beneficially impacted by some proposed actions and adversely impacted by others. The significance of these impacts is an issue for analysis.

5. Impact on Couch's Spadefoot Toad. The Couch's spadefoot toad is a species of scientific interest known to occur in low areas on the east side of the recreation area. It spends most of its life underground in an inactive state, emerging after rains to reproduce. Couch's spadefoot toad habitat could be beneficially impacted by some proposed actions and adversely impacted by others. The significance of these impacts is an issue for analysis.

6. Impact on Candidate Species for Federal Listing as "Threatened" or "Endangered". Three plant species, three reptile species, and one insect species are candidates for listing as "threatened" or "endangered" by the U.S. Fish and Wildlife Service (FWS). Proposed actions could have both beneficial and adverse impacts to these species. The significance of these impacts is an issue for analysis in the EA.

7. Impact on Other Plant Species Considered Sensitive. In addition to the three plant species which are candidates for Federal listing, five other species are listed by the State of California or the California Native Plant Society (CNPS) as "rare," "endangered," or otherwise sensitive. By BLM policy, such species are considered "BLM sensitive." Proposed actions could have both beneficial and adverse impacts to these species. The significance of these impacts is an issue for analysis in the EA.

8. Impact on Private Recreation Service Businesses in Imperial County. Three recreation service businesses located on private lands within the recreation area are largely dependent on sand dunes recreational users for their livelihood. In addition, sand dunes users make a less vital

but nevertheless important contribution to service businesses in the surrounding area. Proposed actions could have both beneficial and adverse impacts to these businesses. The significance of these impacts is an issue for analysis in the EA.

9. Impact on Public Health and Safety. Winter use of the recreation area is expected to reach 7,000 visitors on nonholiday weekends and 35,000 visitors on holiday weekends by 2000 A.D. These concentrations of people can result in safety, sanitation, and other public health problems. Public health and safety could be directly affected by actions of the RAMP. The significance of beneficial or adverse impacts is an issue for analysis in the EA.

ISSUES CONSIDERED BUT DROPPED FROM FURTHER ANALYSIS

1. Impact on Cultural Resources and Native American Values. Cultural resource occurrence within the recreation area is generally low. Proposed facility developments and concentrated recreational use zones are located within the sand dunes, which are almost devoid of cultural resources. Site-specific EAs which consider cultural resources will be prepared prior to implementation of site development projects, the majority of which will occur in zones of existing heavy surface disturbance.

   Scattered, small sites are located outside the dune system. None of these have previously been subject to formal determinations of National Register eligibility, since potentially impacting projects have not been proposed. Impacts to these sites from RAMP prescriptions are expected to be insignificant. The RAMP does not propose new facilities for undisturbed areas outside the dune system, and provides for increased enforcement of use restrictions on lands outside the dunes designated as "Limited" for vehicle use. While Alternative 3 (Closure of Ogilby campsite) would result in increased camping and OHV use near Ogilby Townsite, tangible evidence of the site is largely restricted to the cemetary, which is posted with protective signs. Because of the lack of remaining historical evidence at this site, impacts to historical resources would be insignificant.

   The Plank road is the only site within the recreation area considered eligible for inclusion on the National Register. The Plank Road ACEC Management Plan, approved in 1985, calls for measures which will protect this important historic resource even with projected increases in use. There are no known Native American concerns within the recreation area. For these reasons, the issue of impacts to cultural resources and Native American concerns has been dropped from further analysis in this EA.

2. General Impacts on Plant Communities and Wildlife Habitat. Except for one proposed Desert Plan amendment affecting 880 acres, the actions proposed by the RAMP are consistent with the classes and off-highway vehicle designations assigned by the Desert Plan. The general impacts to plants and wildlife of these designations were considered in the Environmental Impact Statement (EIS) for the Desert Plan. Impacts of the proposed Desert Plan amendment on general plant communities and wildlife habitat will be considered in an EA or EIS prepared at the time the amendment is considered through the amendment process. Site specific EAs considering impacts to all wildlife and vegetation will be prepared prior to implementation of site development projects. For these reasons, the issue of general impacts to plant communities and wildlife habitat has been dropped from further analysis in this EA.

3. Impact on Mineral Development. Potential for mineral development in the recreation area is low. Mineral development in WSAs is limited by provisions of BLM's Interim Management Policy (IMP) for lands under wilderness review. None of the actions proposed by the RAMP would change the status of the WSAs or limit development outside the WSAs. This issue is therefore dropped from further analysis.

4. Impact on Development of Energy Resources. Decisions regarding geothermal leasing in the recreation area were made in 1981 through the Glamis/Dunes Geothermal Leasing EA. The RAMP proposes no changes to those decisions. Potential for development of oil and gas leases in the recreation area is low, and new leases are precluded within WSAs. None of the actions proposed by the RAMP would limit development of oil and gas leases outside of WSAs or otherwise change the existing situation. Therefore, this issue is dropped from further analysis.

5. Impact on Sand and Gravel Extraction. The main area of sand and gravel extraction within the recreation area is on lands east of Glamis. While the RAMP proposes some actions to enhance public safety around sand and gravel pits east of Glamis, none of these actions will have a significant effect on extraction. The RAMP does propose seasonal restrictions on blow sand extraction in intensively used Class I areas. However, demand for this sand has traditionally been low, and extraction will be permitted during low recreation use periods. For these reasons, this issue is dropped from further consideration.

6. Impact on Commercial Filming. The great majority of commercial filming permits issued for the sand dunes are for short-term use (less than 5 days), and normally take place during mid-week when recreation use is low. Issuance of

such permits will not be affected by the RAMP. Occasionally (approximately one permit every 5 years), permits are issued for long-term use involving set construction and extended occupancy. Such use will be limited to sites at which disruption of recreational use can be minimized. This is not expected to have a major impact on the film industry. Therefore, this issue is dropped from further analysis.

7. Impact on Apiary Sites. Provisions of the RAMP are identical to the existing Apiary Management Plan for the El Centro Resource Area. The RAMP will therefore have no impact to apiary sites, and this issue is dropped from further analysis.

8. Impact on Mobile Vendors. No mobile vendors depend on the recreation area as their primary vending location. Vending is in most cases restricted to major weekends, except in the case of ATV rentals. Although the RAMP would heavily limit mobile vending in the Glamis area, many other vending opportunities are available within the recreation area. For these reasons, this issue is dropped from further analysis.

9. Impact on U.S. Navy Operations. The proposed RAMP is consistent with the proposed BLM/U.S. Navy Cooperative Agreement relating to the recreation area and other public lands in Imperial County. The RAMP does not propose changes to the Cooperative Agreement or the actions proposed by 1985 Desert Plan Amendment #1. This issue is therefore dropped from further analysis.

10. Impact on U.S. Bureau of Reclamation Operations. None of the RAMP proposed actions will have an impact to Bureau of Reclamation operations. BLM must obtain Reclamation concurrence on all actions affecting lands or rights-of-way withdrawn for canals or other Reclamation operations. This concurrence and all necessary permits will be obtained before building bridges or undertaking any other projects affecting Reclamation lands. This issue is therefore dropped from further analysis.

SELECTION OF THE PROPOSED ACTION AND DEVELOPMENT OF ALTERNATIVES

Development of the proposed management prescriptions was guided by requirements of the BLM planning regulations (43 CFR Part 1600) and the Desert Plan. The proposed action and alternatives selected for analysis are briefly outlined below.

Alternative 1 - Proposed Action

The proposed RAMP presents an overall strategy for utilizing limited funding to meet the challenges of management in the Imperial Sand Dunes through the year 2000, within the framework of the Desert Plan. A complete description of the proposed action can be found in Part III of the Imperial Sand Dunes RAMP.

Alternative 1 incorporates changes to the proposed action resulting from public review of the draft RAMP. The proposed action was called "Alternative A" in the draft RAMP. Changes to the draft proposed action (Alternative A) which resulted in the final proposed action (Alternative 1) are detailed in Chapter 2 of this EA.

Key features of the RAMP include:

1. A coordinated implementation strategy organized around five funding levels. Level 1 represents actions which will be taken in the event of a reduction in funding to below current levels. Levels 2 through 5 represent progressive levels of development, operations and maintenance staffing, resource monitoring and protection, and other actions needed to insure recreational opportunities and improve manageability. The developments proposed at any funding level will not occur unless the corresponding operations and maintenance staffing, resource monitoring, and resource protection measures of that level are also funded.

2. Linkage of major development actions with actual use levels and monitored resource condition. The plan is intended to accommodate recreation use demands through the year 2000. It is predicted that use could increase by as much as 115% to 1.7 million visitor use days (VUDs) by 2000. Some actions, including development of concession recreational vehicle (RV) parks at Mammoth Wash, near Gecko Campground, and south of Glamis, will be based on actual measured demand by 1995, as well as on available funding, private business interest, and the results of proposed resource monitoring studies. This will insure that such developments are not undertaken before they are truly needed, and until environmental consequences can be fully and accurately assessed.

3. Phased acquisition and development of access to allow optimum utilization of available Class I areas for OHV recreation as demand increases.

4. Phased development of basic sanitation (toilets and trash) and parking facilities in zones of concentrated camping use (Class I).

5. Adoption of supplementary rules and an educational program to promote public safety.

6. A public education program to increase appreciation of sensitive resources.

7. Phased implementation of a sensitive species baseline study and monitoring program, in conjunction with a habitat management plan to be completed in 1987.

8. Development of an OHV access corridor to link portions of the Buttercup Valley Open Area bisected by the All-American Canal and Interstate Highway 8. The connection will link the Grays Well and Gordons Well Class I areas.

9. Phased increases in staffing for operations, maintenance, and patrol, linked to the level of development and use.

10. Implementation of measures to protect wilderness suitability in two WSAs.

11. Acquisition of undeveloped state and private inholdings to improve manageability and protect resources.

12. Adoption of prescriptions to insure compatibility of recreation and other uses.

13. Adoption of a Desert Plan amendment to change the multiple-use classification of 880 acres of public land on the north side of Mammoth Wash from "unclassified" to Class L (80 acres) west of the Coachella Canal and Class I (800 acres) east of the Coachella Canal. The Class L lands would be designated "Limited to Approved Routes" while the Class I lands would be designated "Open" for OHV use.

Alternative 2 - No Action (No change from existing management)

Under this alternative, BLM would manage the Imperial Sand Dunes at the existing funding level with existing staff. State OHV Fund "green sticker" projects approved as of 1986 would be implemented. No overall strategy for facility development, operation, or maintenance would be developed. New sensitive resource baseline data or monitoring studies would be limited to those identified in the Algodones Dunes HMP and funded with appropriated funds. WSAs would be monitored with Ranger patrols. Recreation use would be monitored occasionally as funds permitted. The no action alternative was called "Alternative B" in the draft EA.

Alternative 3 - Use Restrictions at South Ogilby Dunes and Ogilby (Pilot Knob Mesa)

This alternative incorporates draft Alternative C (South Ogilby Closure), with additional use restriction in the Ogilby (Pilot Knob Mesa) area. Alternative 3 is identical to Alternative 1 (Proposed Action), with the following exceptions:

1. 4,300 acres in the South Ogilby Dunes area would be redesignated from "Limited to Existing Routes" to "Closed" to OHV use, through a Desert Plan Amendment. This area would remain Multiple-Use Class M. This part of Alternative 3 was analyzed as Alternative C in the draft EA.

2. 15,300 acres of Pilot Knob Mesa would be closed to overnight camping. This would affect the Ogilby campsite and other OHV camping and staging sites on the east side of the dunes in Multiple-Use Class L. These lands would remain designated "open" for OHV use.

Alternative 4 - Redesignation of South Ogilby Dunes as "Open" for OHV Use

This alternative is identical to Alternative 1 (Proposed Action), except that 4,300 acres in the South Ogilby area would be redesignated from "Limited to Exiting Routes" to "Open" to OHV use, through a Desert Plan Amendment. This area would remain Multiple-Use Class M. This prescription for South Ogilby is identical to that in Alternative A, the draft proposed action.

ALTERNATIVES CONSIDERED BUT DROPPED FROM FURTHER ANALYSIS

Three alternatives were considered which would involve major Desert Plan amendments to change the multiple-use class and OHV designation of large acreages in the central dunes area between the Glamis-Gecko Open Area and Buttercup Valley Open Area. These alternatives, and the rationale for dropping them from detailed analysis in this EA, are presented below:

Alternative 5 - Central Dunes Closure

This alternative would be identical to the proposed action except that approximately 81,000 acres of land in the central dunes, including WSA 362, all Class L south of WSA 362, and Pilot Knob Mesa, would be redesignated from "Open" to "Closed" to OHV use, through a Desert Plan amendment. This alternative was called "Alternative D" in the draft EA.

Rationale for dropping Alternative 5 from further consideration are as follows:

1. BLM made a commitment through the Desert Plan to closely monitor use and impacts in this area and to protect sensitive resources, while allowing traditional vehicle use. The proposed RAMP and a habitat management plan upcoming in 1987 will continue implementation of this ongoing monitoring and protection program.

2. While use levels in portions of the Class L and WSA 362 lands do occasionally approach moderate levels, especially near camping areas on major holiday weekends, impacts to the lands remain minor. Wilderness suitability has not been impaired. Overall use of the central dunes remains light and is expected to remain that way in spite of increases predicted by 2000 A.D.

3. If ongoing WSA monitoring and proposed sensitive plant and wildlife studies determine that adverse effects are in fact occurring, appropriate protective measures will be taken. The nature of protective measures would depend on the extent and degree of impacts as determined through the studies. Possible measures could include erection of fenced exclosures, restriction of overnight use of Class L lands to discourage camping and staging, or closure of a portion or all of these lands. Before closure would be implemented, every effort would be made to develop adequate protection measures short of large-scale closure.

Alternative 6 - Enlarge Central Dunes Class I

This alternative was called "Alternative E" in the draft EA. This alternative would be identical to the proposed action with the following exceptions:

1. Approximately 26,000 acres of Class L land west, south, and east of WSA 362 would be reclassified to Class I through a Desert Plan amendment.

2. A bridge over the All-American Canal would be built immediately north of the proposed Sand Hills Interchange. This would create a direct OHV corridor between Buttercup Valley and the dunes to the north (which would be changed from Class L to Class I by the Desert Plan amendment specified in No.1 above.)

3. Restroom facilities and trash service would be implemented at the Ogilby campsite.

Rationale for dropping Alternative 6 from detailed analysis in this EA are as follows:

1. In conjunction with the Desert Plan commitment to closely monitor use and impacts to sensitive resources in the central dunes, BLM also made a commitment to limit use levels in this area by taking no actions to improve access or develop facilities.

2. These actions to encourage use of lands to the west, south, and east of WSA 362 would also result in higher use levels within the WSA. This could result in impairment of the suitability of the WSA for designation as wilderness.

Alternative 7 - Delete WSA 362

This alternative was called "Alternative F" in the draft EA. It would be identical to Alternative 6, but would also include deletion of WSA 362, through an amendment of BLM's 1979 wilderness final intensive inventory, and reclassification of the area as Class I through a Desert Plan amendment.

This alternative is not legally possible. BLM stands by the 1979 inventory. Although the Desert Plan recommended the WSA as nonsuitable, it does possess the wilderness characteristics described in the Wilderness Act of 1964, and these characteristics have been protected under interim management. The WSA will be managed according to Section 603 of FLPMA and BLM's Interim Management Policy (IMP) until Congress decides whether to designate it as wilderness or release it for limited multiple use according to the Desert Plan recommendation.

CHAPTER 2
The Proposed Action and Alternatives

10. Prescription 6-34. Language has been added to the discussion of decision criteria for Mammoth Wash development emphasizing that results of baseline resource studies will be an important consideration in the decision making process.

    In addition to the changes detailed here, a number of minor corrections (such as elimination of typographic errors and changes in word choice to clarify meaning or eliminate inconsistencies) have been made to the text.

ALTERNATIVE 2 - NO ACTION (NO CHANGE FROM EXISTING MANAGEMENT)

This alternative was called "Alternative B" in the draft EA. Alternative 2 is identical to draft Alternative B, except that prescriptions 3-7 (preparation of a HMP) and 4-4 (showing WSA boundaries on the recreation area brochure) have been added to the list of prescriptions that would be implemented under the No Action alternative. Under this alternative, BLM would manage the Imperial Sand Dunes at the existing funding level with existing staff. State OHV projects could be proposed from time to time on a case-by-case basis, but no overall facility development, operation, and maintenance strategy would be developed.

For purposes of analysis, it is assumed that OHV projects already approved as of 1986 would be implemented under "No Action." In the Gecko area, these include construction of Roadrunner Campground, addition of a 40-cubic yard trash station at Roadrunner, paving the Cahuilla Ranger Station public parking area, expansion of the Cahuilla Ranger Station to accommodate a Dunes Patrol and residence for Recreation Technicians, hiring two seasonal and four intermittent EMT/Recreation Technicians, hiring one seasonal Maintenance Worker, and funding for road maintenance (sand removal and pavement seal coats). A volunteer Dunes Patrol would be formed.

In the southern dunes area, the Buttercup Access Road (Grays Well Road extension to the Sand Hills Interchange site,) would be paved and completed. Trash stations would be established at Buttercup, Grays Well (Plank Road), and Gordons Well.

No development or maintenance other than those projects specifically listed here would be undertaken. For purposes of analysis, it is assumed that the State OHV fund would continue to support existing operations and maintenance projects in the future.

New resource baseline data or monitoring studies would be limited to those which might be identified through the HMP and funded from appropriated funds. WSAs would be monitored with Ranger patrols and periodic overflights.

Specific RAMP prescriptions which would be implemented under this alternative include:

1. Recreation Opportunity Prescriptions 1-1, 1-2, 1-3, and 1-4.

2. Safety/Emergency Services/Visitor Protection Prescriptions 2-1, 2-3, 2-4, 2-5, 2-6, and 2-19 (beginning with the 1987-88 season).

3. Resource Protection Prescriptions 3-1, 3-2, 3-3, 3-4, 3-6, and 3-7.

4. Wilderness Protection Prescriptions 4-1, 4-2, and 4-4.

5. Public Contact/Interpretation Prescriptions 5-1, 5-2, 5-11, and 5-13.

6. Facility Development Prescriptions 6-1, 6-2, 6-3, 6-4, 6-11, 6-20, and 6-23.

7. Operations and Maintenance Prescriptions 7-1, 7-2, 7-12, 7-13, 7-14, 7-20, 7-22, 7-23, 7-24, 7-25, 7-32, and 7-33.

8. Concession and Vendor Prescription 8-1.

9. Access Easement and Land Acquisition Prescriptions 9-2, 9-3, 9-8, 9-9, 9-10.

10. Land Use compatibility Prescriptions 10-1, 10-2, 10-6, 10-9, 10-13, and 10-14.

Alternative 3 - Use Restrictions at South Ogilby Dunes and Ogilby (Pilot Knob Mesa)

This alternative incorporates draft Alternative C (South Ogilby Closure), with additional use restriction in the Ogilby (Pilot Knob Mesa) area. Alternative 3 is identical to Alternative 1 (Proposed Action), with the following exceptions:

1. 4,300 acres in the South Ogilby Dunes area would be redesignated from "Limited to Existing Routes" to "Closed" to OHV use, through a Desert Plan Amendment. This area would remain Multiple-Use Class M. This part of Alternative 3 was analyzed as Alternative C in the draft EA.

2. 15,300 acres of Pilot Knob Mesa would be closed to overnight camping. This would affect the Ogilby campsite and other OHV camping and staging sites on the east side of the dunes in Multiple-Use Class L. These lands would remain designated "open" for OHV use. The objective of this action would be to limit use of Pilot Knob Mesa to a low level.

Alternative 4 - Redesignation of South Ogilby Dunes as "Open" for OHV Use

This alternative would be identical to Alternative 1 (Proposed Action), except that 4,300 acres in the South Ogilby area would be redesignated from "Limited to Exiting Routes" to "Open" to OHV use, through a Desert Plan Amendment. This area would remain Multiple-Use Class M. This prescription for South Ogilby is identical to that in draft Alternative A, the draft proposed action.

CHAPTER 3
Affected Environment

CHAPTER 3

AFFECTED ENVIRONMENT

GENERAL DESCRIPTION

The Imperial Sand Dunes Recreation Area encompasses the area shown on RAMP Map 2, containing approximately 184,000 acres of public lands. The management area boundary has been drawn to coincide with recreation use patterns. Consequently, the boundary extends beyond the dunes at key points to include popular camping and staging areas in the adjacent creosote bush scrub. However, the vast majority of the acreage encompasses the Imperial Sand Dunes, which at 1000 square miles is one of the largest dune systems in North America. Forming a band 40 miles long and an average 5 miles wide, the dune system extends beyond the recreation area into Mexico. The dunes reach heights of over 300 feet and primarily have a northwest to southeast orientation influenced by the prevailing northwesterly winter and southeasterly summer winds.

The east and west sides of the dune system differ markedly in character. West side sands are composed of generally heavier, coarser material than the lighter, finer sands carried further east in the prevailing northwest winds. The coarse sands form the largest, tallest dunes, located in the western two-thirds of the dune system. These constitute the "primary dunes." The tallest dunes are found toward the center of the overall dune mass, in the eastern half of the primary dune area. East of the primary dunes are the "secondary dunes," smaller dunes composed of finer sands and having more vegetation cover.

Annual precipitation averages approximately two inches. Hot temperatures prevail during the summer months from June through September, when daytime highs routinely exceed 100 degrees F. and may climb to 120 degrees F. During the winter, daytime highs are in the pleasant 60 - 80 degree range. The most comfortable weather (and the majority of recreation use) occurs from November through April. Besides providing a mecca for off-road vehicle enthusiasts, the dunes are home to a highly specialized and unusual association of plant and animal species.

MANAGEMENT HISTORY

Consult the "Previous Planning" section of the Imperial Sand Dunes RAMP, pages 1 - 10, for an account of management history.

VEGETATION

Plant Communities

The recreation area contains the following five plant communities or habitat types, as shown on Map EA-1:

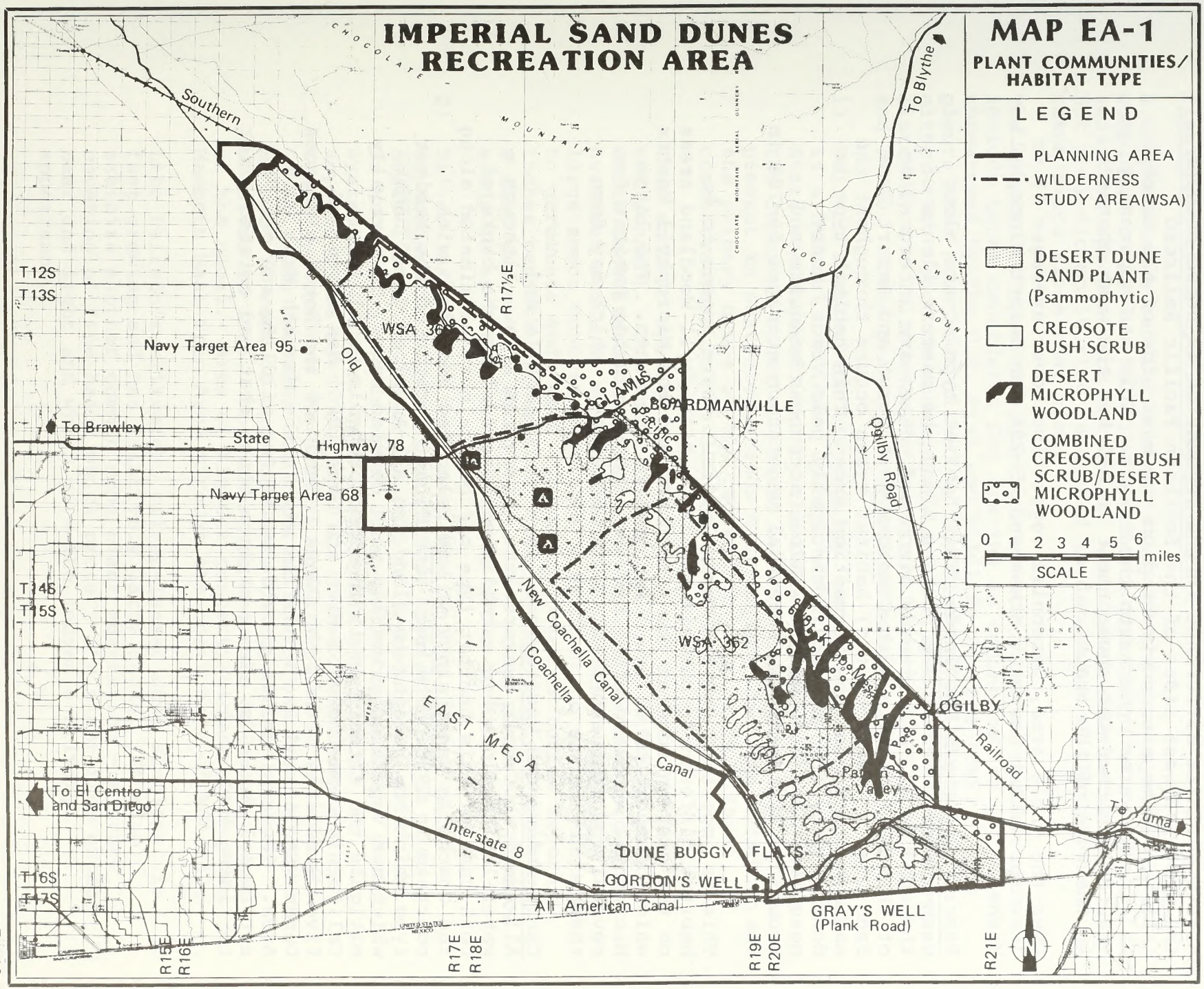
Desert Dune Sand Plant (Psammophytic)
Creosote Bush Scrub
Combined Creosote Bush Scrub/Desert Microphyll Woodland
Desert Microphyll Woodland
Canal Influenced Vegetation

Desert Dune Sand Plant (Psammophytic): This includes areas of actively moving sand dunes as well as partially stabilized dunes. Plant density varies widely, depending upon water, sand mobility, and OHV use. Most of the plant species of special concern occur within this habitat type. Vegetation is adapted to relatively high sand mobility and deep water percolation. Many of the species adapted for life in loose, shifting sand are capable of very rapid growth. Common plants include: common sandpaper plant (Petalonyx thurberi), desert buckwheat (Eriogonum deserticola), desert panicum (Panicum urvilleanum), silver-leaved dune sunflower (Helianthus niveus ssp. tephrodes), sand food (Ammobroma sonorae), Peirson's milkvetch (Astragalus magdalenae var. peirsonii), Mormon tea (Ephedra trifurca), Wiggins croton (Croton wigginsii), desert dicoria (Dicoria canescens), and Coldenia plicata, with many annual plants in favorable years.

Creosote Bush Scrub: This is the most extensive habitat type in the California Desert. On the western edge of the Imperial Dunes, the majority of this habitat consists almost exclusively of tall, fairly dense stands of creosote bush (Larrea tridentata). Some sink areas in the central dunes also fall most closely into this habitat type. Perennial vegetation cover averages 25-50% in much of this type.

This habitat also occurs in the flat desert pavement areas between the washes to the east of the sand dunes, as described for the combined creosote bush scrub/desert microphyll woodland type.

Combined Creosote Bush Scrub/Desert Microphyll Woodland: This area east of the Imperial Dunes is a large alluvial fan draining the Chocolate and Cargo Muchacho Mountains. The alluvial fan is dissected into numerous washes and plains. Most of these washes support elements of Desert Microphyll Woodland, while the plains support Creosote Bush Scrub elements.


IMPERIAL SAND DUNES RECREATION AREA
MAP EA-1
PLANT COMMUNITIES/ HABITAT TYPE
LEGEND
PLANNING AREA
WILDERNESS STUDY AREA(WSA)
DESERT DUNE SAND PLANT (Psammophytic)
CREOSOTE BUSH SCRUB
DESERT MICROPHYLL WOODLAND
COMBINED CREOSOTE BUSH SCRUB/DESERT MICROPHYLL WOODLAND
0 1 2 3 4 5 6 miles
SCALE
Southern
To Blythe
CHOCOLATE MOUNTAINS
T12S
T13S
R17½E
WSA 368
Navy Target Area 95
Old
GLAMIS
BOARDMANVILLE
To Brawley
State
Highway 78
Navy Target Area 68
Ogilby Road
T14S
T15S
New Coachella Canal
Coachella
WSA 362
EAST MESA
Canal
OGILBY
Railroad
Palo Verde Valley
To El Centro and San Diego
Interstate 8
To Yuma
DUNE BUGGY FLATS
T16S
T17S
GORDON'S WELL
All American Canal
GRAY'S WELL (Plank Road)
R15E
R16E
R17E
R18E
R19E
R20E
R21E
N

A very definite difference in the vegetation is noted between the east and west sides of the Southern Pacific Railroad tracks. Berms are constructed on the east side of the tracks to channel water underneath the tracks. This has apparently created a much drier environment in all but the wash channels to the west of the tracks.

Over the whole area, perennial vegetation cover averages 5% or less for desert pavement areas and 15-20% for Desert Microphyll Washes.

Desert Microphyll Woodland: This habitat type occurs along wash channels and in low pockets along the eastern flanks of the sand dunes. As already discussed, extensive intergrading of this habitat type with Creosote Bush Scrub and Desert Dune Sand Plants (Psammophytic) habitat types occurs throughout the eastern portion of the recreation area. This habitat type is dominated by tree species, principally palo verde, honey mesquite, ironwood, desert willow, screwbean mesquite and occasionally tamarisk. Perennial vegetation averages 60-70% in the woodland areas.

This is important habitat for wildlife. There appear to be habitat differences between the large Microphyll Woodland areas on the eastern edge of the sand dunes and the Microphyll Washes which dissect the alluvial fan east of the dunes. The large Microphyll Woodland areas provide highly valuable habitat for several species, especially burro mule deer, which may fawn there.

Canal-Influenced Vegetation: Both the Coachella and All-American Canals traverse the recreation area. Although a water-loving flora had established itself along the banks of both canals, this habitat type has been almost eliminated along the Coachella Canal since it was relocated and lined with concrete in 1980. The only significant portion of the habitat type which now remains is along the All-American Canal banks, which are vegetated primarily with carrizo cane. To partially mitigate the effects of lining the Coachella Canal, the California Department of Fish and Game (DFG) has installed five windmills within the Class C lands of the North Algodones Dunes WSA 360 and two windmills within the Mammoth Wash Open Area. These windmills provide water for wildlife and create artificial wetlands, which replace those that had existed prior to lining the canal.

Plant Species of Special Significance

A comprehensive sensitive plant study of the dune system was completed in 1977. Relative abundance and distribution of sensitive species were determined with reasonable certainty, but periodic monitoring is needed to determine if changes have taken place since that time.

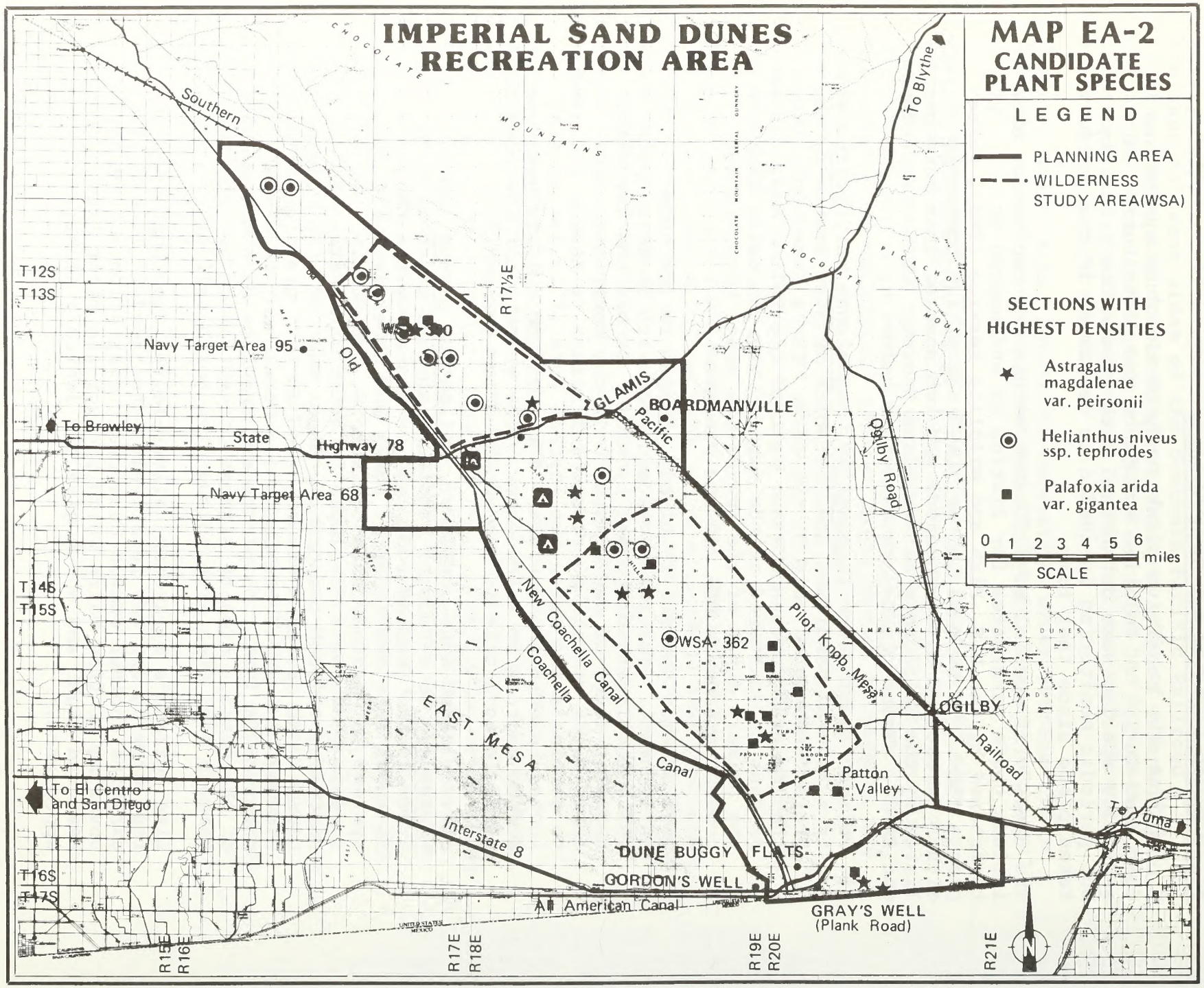
The species of special significance within the recreation area include three candidates for listing as endangered or threatened by the U.S. Fish and Wildlife Service (FWS), three plants that have been listed by the State of California as either threatened or endangered, and two species that have been listed by the California Native Plant Society (CNPS) (Maps EA-2 and EA-3). These plants are described below:

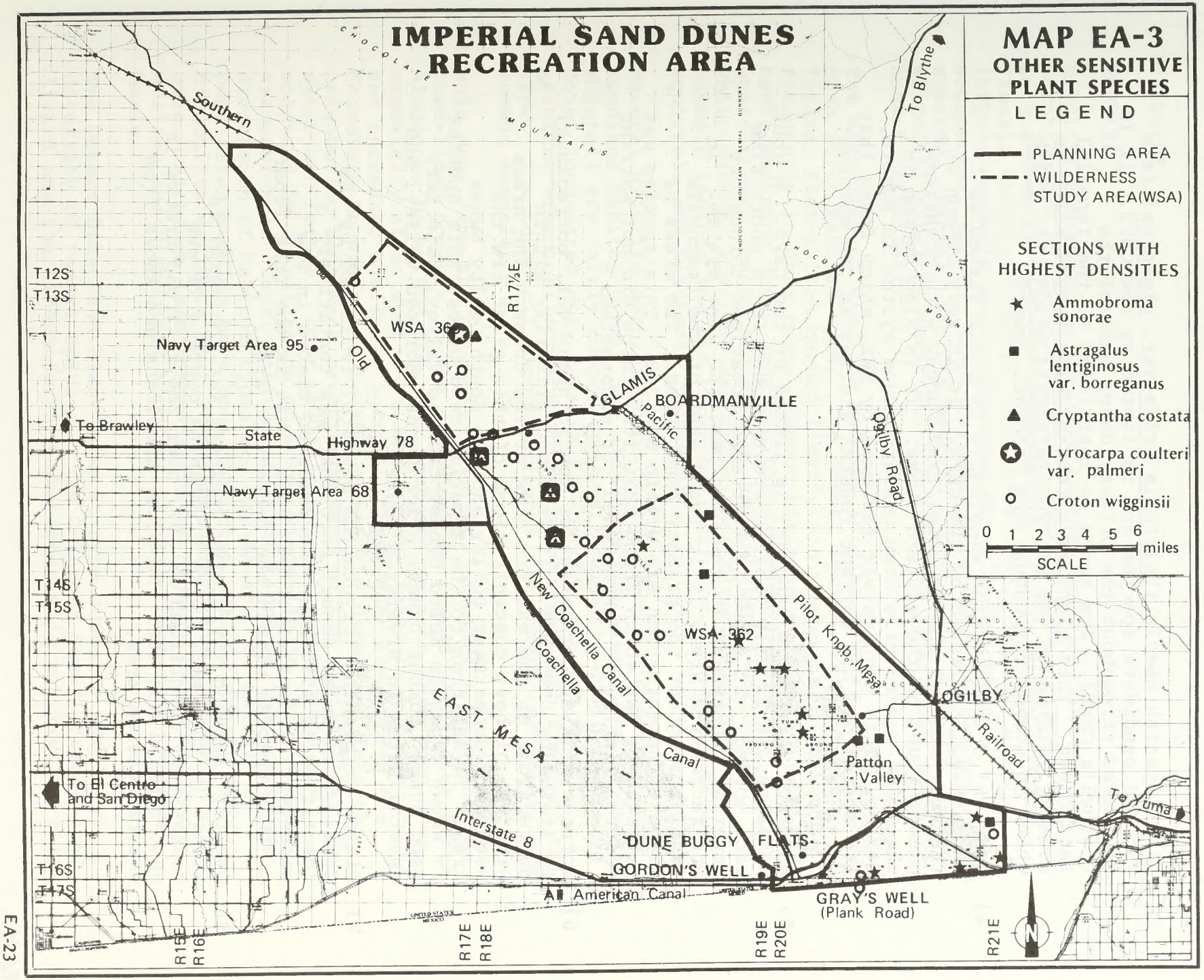
1) Peirson's milkvetch (Astragalus magdalenae var. peirsonii) is a Federal candidate species which is also listed by the State (endangered) and by the CNPS. It is known only from the Imperial Dunes and areas west of the Salton Sea. It is present in scattered stands east of the Coachella Canal in the primary dunes of the recreation area, with highest concentrations in WSA 360 and WSA 362.

   This endemic species is highly adapted to the dune environment. Its seeds are equipped with inflated pods which facilitate dispersal by wind. It has the largest, heaviest seeds of any milkvetch in the southwest. The large seeds contain nutrients sufficient to enable the seed to germinate and reach the surface even if buried several inches beneath the surface. The seedling quickly develops a deep taproot to reach water. The young plant may produce seeds in as little as two months after germination.

2) Silver-leaved dune sunflower (Helianthus niveus ssp. tephrodes) is a Federal candidate species which is also State listed (endangered), and is listed by the CNPS. It is known from the Imperial Dunes and other isolated dune systems in Arizona, Baja California, and Sonora. It appears to be best developed in active dune areas and is scattered through the primary dunes east of the Coachella Canal. One specimen was reported in 1979 growing alongside Highway 78 west of the Coachella Canal, but it was not observed in 1985. No plants are known to be growing west of the canal. Area of highest concentration is from the Mammoth Wash Open Area through the north half of WSA 362.

   Like Peirson's milkvetch, silver-leaved dune sunflower is fast growing and has relatively large seeds. It also exhibits another common dune plant adaptation - a dense covering of fine hairs which protect the plant from excess heat and light and which give the leaves a silvery appearance.


IMPERIAL SAND DUNES RECREATION AREA
MAP EA-2
CANDIDATE PLANT SPECIES
LEGEND
PLANNING AREA
WILDERNESS STUDY AREA(WSA)
SECTIONS WITH HIGHEST DENSITIES
Astragalus magdalenae var. peirsonii
Helianthus niveus ssp. tephrodes
Palafoxia arida var. gigantea
0 1 2 3 4 5 6 miles
SCALE
Southern Pacific
To Blythe
CHOCOLATE MOUNTAINS
PICACHO
T12S
T13S
T14S
T15S
T16S
T17S
R15E
R16E
R17E
R18E
R19E
R20E
R21E
R17½E
WSA- 390
Navy Target Area 95
Old
GLAMIS
BOARDMANVILLE
To Brawley
State Highway 78
Navy Target Area 68
Ogilby Road
New Coachella Canal
Coachella Canal
Pilot Knob Mesa
WSA- 362
EAST MESA
OGILBY
Railroad
Patton Valley
To El Centro and San Diego
Interstate 8
DUNE BUGGY FLATS
GORDON'S WELL
American Canal
GRAY'S WELL (Plank Road)
To Yuma
N


IMPERIAL SAND DUNES RECREATION AREA
MAP EA-3
OTHER SENSITIVE PLANT SPECIES
LEGEND
PLANNING AREA
WILDERNESS STUDY AREA(WSA)
SECTIONS WITH HIGHEST DENSITIES
Ammobroma sonorae
Astragalus lentiginosus var. borreganus
Cryptantha costata
Lyrocarpa coulteri var. palmeri
Croton wigginsii
0 1 2 3 4 5 6 miles
SCALE
Southern Pacific
To Blythe
CHOCOLATE MOUNTAINS
T12S
T13S
R17½E
WSA 362
Navy Target Area 95
Old
GLAMIS
BOARDMANVILLE
To Brawley
State Highway 78
Navy Target Area 68
Ogilby Road
T14S
T15S
New Coachella Canal
Coachella Canal
Pilot Knob Mesa
WSA 362
EAST MESA
OGILBY
Railroad
Patton Valley
To El Centro and San Diego
Interstate 8
To Yuma
DUNE BUGGY FLATS
GORDON'S WELL
T16S
T17S
All American Canal
GRAY'S WELL (Plank Road)
R15E R16E
R17E R18E
R19E R20E
R21E
N

3) Giant Spanish needle (Palafoxia arida var. gigantea) is a Federal candidate species and is listed by the CNPS. It is scattered throughout the primary dunes east of the Coachella Canal. Its range is restricted to the Imperial Sand Dunes. This plant is a fast-growing annual which is closely related to the smaller Palafoxia arida var. arida which is common throughout the Colorado Desert.

4) Wiggins' Croton (Croton wigginsii) is State listed as threatened and listed by the CNPS. It is very common on the west side of the Imperial Sand Dunes, with occasional plants found on the eastern dunes. It is also common in the 1,700 square-mile Gran Desierto dune system in Sonora, Mexico. This species was reviewed by FWS, which found that its status did not warrant Federal listing as "threatened" or "endangered".

5) Sandfood (Ammobroma sonorae) is listed by the CNPS. A root parasite, it is only visible above ground for a short time each spring. It grows in scattered locations throughout Imperial County and in the Gran Desierto dune system. In the recreation area, it is found east of the Coachella Canal throughout the primary sand dunes. The areas of highest concentration are within WSA 362. This species was reviewed by FWS which found that its status did not warrant Federal listing as "threatened" or endangered."

6) Borrego milkvetch (Astragalus lentiginosus var. borreganus) is listed by the CNPS. It is found primarily within depressions on the eastern side of the dunes. The areas with the highest concentrations of this plant are the secondary dunes near Ogilby and the South Ogilby Dunes area. In addition to the Imperial Sand Dunes, this species is known from the Kelso Dunes, Cronese Valley, Dale Lake Sand Dunes, Dumont Dunes, Arica Dunes, Borrego Valley, and several sites in Riverside County.

7) Ribbed cryptantha (Cryptantha costata) is listed by the CNPS. This is an annual forb that was tentatively identified in 1977 near the railroad tracks in the east-central portion of WSA 360. This is the only report of this species within the recreation area.

8) Coulter' Lyrepod (Lyrocarpa coulteri var. palmeri) is listed by the CNPS. Like Cryptantha costata it was tentatively identified in 1977 near the railroad tracks in east-central WSA 360. No other specimens are known from the recreation area.

WILDLIFE

General

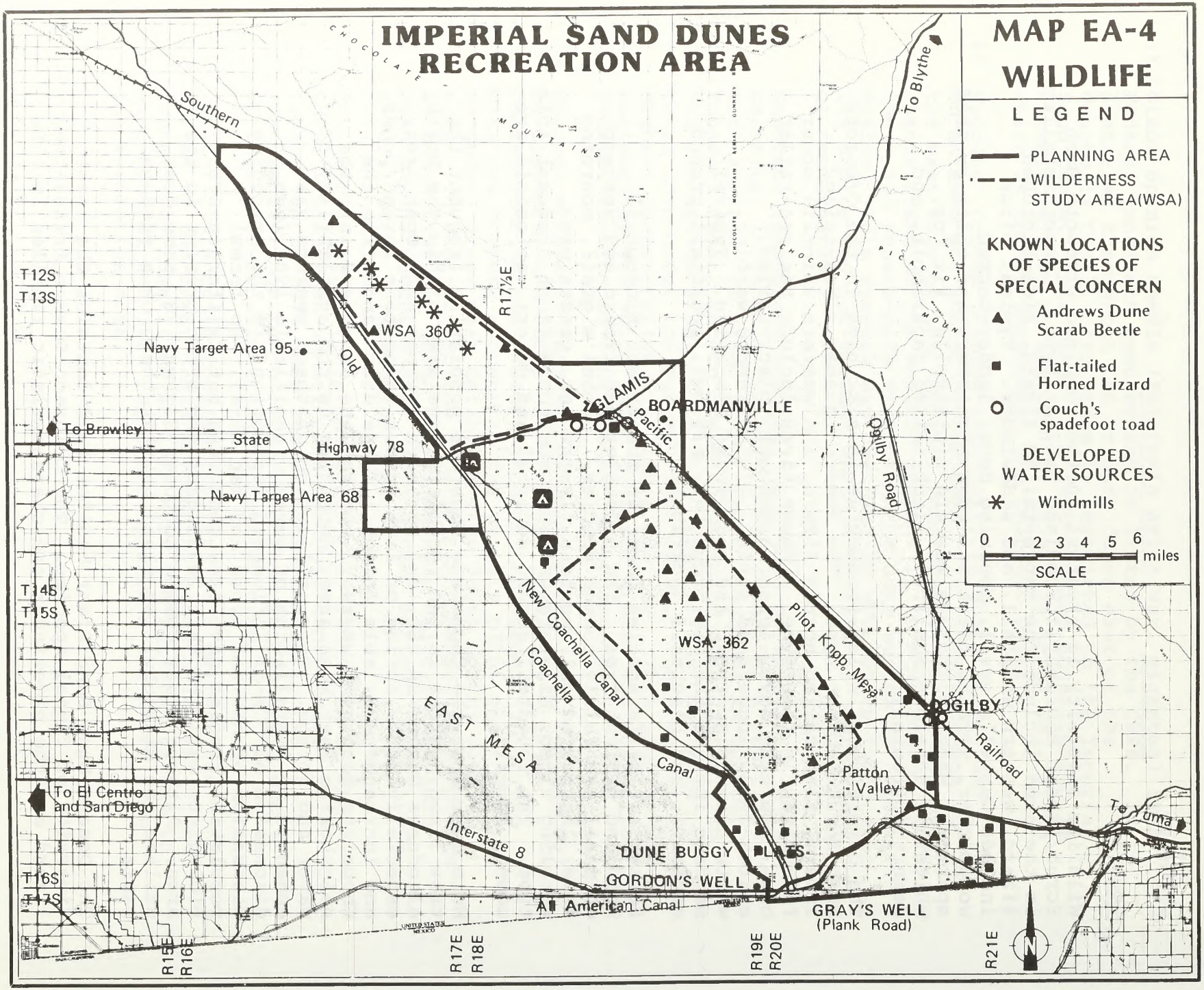
Wildlife diversity is greatest in the Combined Creosote Bush Scrub/Desert Microphyll Woodland habitat type. Common reptiles in the area include the zebra-tailed lizard, side-blotched lizard, western whiptail, and sidewinder. Typical birds include Gambel's quail, mourning dove, ladder-backed woodpecker, verdin, black-tailed gnatcatcher, and white-crowned sparrow. Mammals include western pipistrelle, kit fox, whitetail antelope squirrel, black-tailed jackrabbit, and desert cottontail.

The diversity of wildlife species is also high in the Creosote Bush Scrub habitat type. The desert iguana, zebra-tailed lizard, flat-tailed horned lizard, and western whiptail occur frequently in this type. Common birds include the red-tailed hawk, mourning dove, lesser nighthawk, black-tailed gnatcatcher, loggerhead shrike, yellow-rumped warbler, white-crowned sparrow, and red-winged blackbird. Typical mammals include the big brown bat, kit fox, roundtail ground squirrel, and blacktail jackrabbit.

Several wildlife species occur in the Desert Microphyll Woodland habitat type. The side-blotched lizard and western whiptail are fairly common species. Gambel's quail, mourning dove, long-eared owl, western fly-catcher, cactus wren, warbling vireo, Wilson's warbler, and house finch frequent this type. The roundtail ground squirrel and desert cottontail are common mammals.

Mule deer from the Chocolate Mountain population frequent the tree-lined pockets in the secondary dune area within the North Algodones Dunes WSA 360, and southern Mammoth Wash Open Area, especially after spring or late summer rains have formed ponds and increased available forage. These deer range from the Chocolate Mountains westward through the dunes and into the neighboring East Mesa area, depending on the availability of water and forage. Deer utilization of these pockets was enhanced by installation of seven windmills in 1982 (see discussion of "Canal Influenced Vegetation" in the preceding discussion of habitat types and map EA-4). No formal population studies have been conducted but California DFG biologists estimate that 20-25 deer are often present in the area. Although less common south of Highway 78, some deer utilize the Microphyll Woodland habitat there on a seasonal basis.

The Desert Dune Sand Plant habitat type contains the least diversity of faunal species. The Colorado Desert fringe-toed lizard and the sidewinder are characteristic reptiles in this


IMPERIAL SAND DUNES RECREATION AREA
MAP EA-4
WILDLIFE
LEGEND
PLANNING AREA
WILDERNESS STUDY AREA(WSA)
KNOWN LOCATIONS OF SPECIES OF SPECIAL CONCERN
Andrews Dune Scarab Beetle
Flat-tailed Horned Lizard
Couch's spadefoot toad
DEVELOPED WATER SOURCES
Windmills
0 1 2 3 4 5 6 miles
SCALE
Southern Pacific
To Blythe
WSA 360
Navy Target Area 95
Old State Highway 78
To Brawley
Navy Target Area 68
GLAMIS
BOARDMANVILLE
Ogilby Road
WSA 362
Pilot Knob Mesa
New Coachella Canal
Coachella Canal
EAST MESA
OGILBY
Railroad
Patton Valley
To El Centro and San Diego
Interstate 8
DUNE BUGGY FLATS
GORDON'S WELL
All American Canal
GRAY'S WELL (Plank Road)
To Yuma
T12S
T13S
T14S
T15S
T16S
T17S
R15E
R16E
R17E
R18E
R19E
R20E
R21E
R17½E
N

habitat type. The mourning dove, cliff swallow, LeConte's thrasher, and black-tailed gnatcatcher are fairly common. The coyote, roundtail ground squirrel, desert kangaroo rat, and blacktail jackrabbit are typical mammalian species. The Andrew's dune scarab beetle also occurs in this habitat type.

The canal influenced habitat is utilized by American coots, ducks, red-wing and yellow-headed blackbirds, common yellow throats, and marsh wrens.

Couch's spadefoot toad has been reported near Glamis and Ogilby townsite. This species frequents shortgrass plains, mesquite savannah, creosote bush desert, and other areas of low rainfall from Southern California through Arizona and New Mexico into central Texas, and south into Baja California and central Mexico. It may spend 10 months or more each year underground in an inactive state. After rains begin, the toads emerge to mate and lay eggs in temporary pools. The new generation of toads finds shelter underground when the pools dry up. Within the recreation area, the toads have been reported from low pockets in the secondary dunes and in some of the gravel pits east of Glamis. It is suspected that they may utilize other low areas within the combined creosote bush scrub/desert microphyll woodland on the east side of the dunes.

Species of Special Significance

The flat-tailed horned lizard (Phrynosoma mcallii) is fully protected by the State of California. It is also a BLM (California) sensitive species. The species is also currently a candidate for listing as "threatened" or "endangered" by the FWS.

The flat-tailed horned lizard has a limited range within the United States. It occurs in desert areas of southeast California, primarily in Imperial County, with a few populations in San Diego and Riverside Counties and in southwestern Arizona. It feeds primarily on ants.

BLM-funded studies were conducted in 1978, 1979, and 1980 to determine the status and distribution of the lizard in southern California. Results indicate that the recreation area is included within the range of the lizard. Although the lizard occurs within the area, its numbers do not appear to be high. It is found mainly in the Creosote Bush Scrub habitat type on the margins of the dunes. It is not found in the dunes proper.

The desert tortoise (Gopherus agassizi) is a BLM (California) sensitive species, and is protected by the State of California. FWS has determined that the species warrants a "threatened" status, although it has not yet been listed.

The distribution of the desert tortoise in the United States is limited to southeastern California, southern Nevada, extreme southwestern Utah, and western Arizona. It is a completely terrestrial desert species and requires firm but not hard ground for burrowing. Creosote bush is often present in areas inhabited by the tortoise.

The recreation area appears to be on the margin of desert tortoise range. Although the tortoise has been recorded within the northern portion of the recreation area in the Mammoth Wash Open Area and the northern reaches of WSA 360, population densities appear to be extremely low. Animals have been recorded in or adjacent to the recreation area in the Creosote Bush Scrub and Desert Microphyll Woodland/Creosote Bush Scrub habitat types.

The Andrew's dune scarab beetle (Pseudocotalpa andrewsi) is a Federal candidate for listing as "threatened" or "endangered." It is found near Glamis and at several other locations in the secondary dunes on the east side of the dune system (Map EA-4). The species is probably endemic to the Imperial Dunes in Imperial County, California, and Baja California Norte, Mexico.

The beetle specifically inhabits troughs of loose drifting sand between the dunes. A substantial portion of the recreation area has been proposed previously as critical habitat for the beetle.

The Colorado desert fringe-toed lizard (Uma notata) is a Federal candidate for listing as "threatened" or "endangered." Its range extends from the Salton Sea south to the Colorado River Delta in Mexico, and around the head of the Gulf of California to Tepoca Bay, Sonora. It occurs in areas of loose, windblown sand throughout the Imperial Sand Dunes (primary and secondary dunes).

CULTURAL RESOURCES/NATIVE AMERICAN VALUES

For purposes of discussing these resources, there are two basic areas of consideration: the sand dunes themselves, and the areas adjacent to the dunes; i.e., East Mesa and Pilot Knob Mesa.

The sand dunes are considered devoid of archaeological resources. There may be some small temporary camps, but this is an exceedingly low possibility. Shifting sands have either disrupted any possible resources or buried them.

There has been some archaeological inventory within the recreation area in those locations adjacent to the sand dunes. Eric Ritter (1975) first recorded several sites on East Mesa as part of a motorcycle race course study. Charles Bull (1981) compiled BLM data generated from a larger study area on both sides of the dunes for geothermal development and exploration.

Field work reported by Bull (1981) involved inventory of 82 randomly selected transects. Individual 80 acre parcels were walked in 50 meter transects by BLM temporary personnel. Results are somewhat ambiguous since data were lost. Repetition of the inventory is not necessary because of low site densities and the limited research potential of recorded archaeological properties. In total, 31 sites were documented, although the majority of these consist of small ceramic scatters or cleared circles. In his report Bull (1981) concluded that only two of these were potentially eligible for inclusion on the National Register of Historic Places. Neither of these properties have received formal determinations of eligibility. Neither these sites nor any others are likely to be impacted by the RAMP since management actions are focused within the sand dunes region. The only change in management anticipated for areas outside the actual sand dunes is increased enforcement of vehicle use limitations. Finally, Bull (1981) assigned the East Mesa segment only a moderate sensitivity ranking.

The Pilot Knob Mesa segment of the recreation area also received a moderate rating from Bull (1981). This area is largely devoid of archaeological sites, although a number of historic sites were located. These consisted primarily of historic isolates and small features. Three historical cemeteries (dating from the period 1880 - 1930) are located at the railroad townsites of Amos, Glamis, and Ogilby. Except for the cemeteries, which are posted with protective signs, little tangible evidence of these communities remains today. Of the three, only the Amos cemetery is on public land (in the Mammoth Wash Open Area). A fourth historic cemetery is located on public lands southeast of Glamis in Class M.

Remnants of the Plank Road, a single-lane wooden roadway utilized by highway traffic between 1914 and 1926, can be seen at Grays Well. A fenced section of the road has been established to protect the site.

The sand dunes are not unusually esteemed by Native American groups. Indian representatives from the Quechan Reservation have demonstrated no special interest in the area over the years.

RECREATION

See pages 14 - 21 of the Imperial Sand Dunes RAMP for an in-depth discussion of recreation use.

WILDERNESS

Two wilderness study areas (WSAs) are wholly within the recreation area: WSA 360, North Algodones Dunes; and WSA 362, South Algodones Dunes, as depicted on Map 2 of the RAMP. The 24,227-acre WSA 360 is north of Highway 78 and south of the Mammoth Wash Open Area. WSA 362 covers 54,141 acres of the central dunes. Its north boundary is five miles south of Highway 78, one mile south of the end of Gecko Road.

These WSAs were established in 1979 through the wilderness inventory mandated by the 1976 Federal Land Policy and Management Act. Through this inventory, BLM formally identified lands possessing the wilderness values described in the Wilderness Act of 1964:

Wilderness Values - WSA CDCA 360, North Algodones Dunes

Naturalness: The WSA is essentially untrammeled by man. The only signs of man are six windmills and wells providing water for wildlife. The windmills have been concealed in trees and are substantially unnoticeable within the area.

Solitude: The opportunities for solitude are outstanding. The challenging hiking into the dunes serves to limit use and enhance opportunities for solitude. The undulating transverse dunes and the thickly vegetated east side valleys and hollows serve to shield users from one another, also enhancing the feeling of solitude.

Primitive and Unconfined Recreation: Opportunities for primitive forms of recreation (i.e., hiking, backpacking, and nature studies) are outstanding because of the large spaces involved and the natural screening of the dunes and vegetation. The soft sand presents strenuous hiking conditions and the lack of easily-identifiable topographic features presents a primitive recreational challenge found in no other Southern California wilderness area.

Special Features: The WSA contains types of dunes technically known as longitudinal, transverse, whaleback, barchan, parabolic, and sand sheets. The whaleback is found nowhere else in the CDCA. Three plant and four wildlife species are under review for possible Federal listing as "threatened" or "endangered." Five additional plant species are listed by either the State of California or the California Native Plant Society as sensitive.

Wilderness Values - WSA CDCA 362, South Algodones Dunes

Naturalness: The WSA is essentially untrammeled by man. Along the relatively stable vegetated western margin of the sand dune system are found a number of OHV trails ("sand highways") which are 20 to 50-foot wide strips devoid of vegetation. OHV tracks are found at times throughout the WSA, but these tracks are periodically erased by windstorms, except on the sand-free floors of some interior basins.

The only other signs of human activity are items of unexploded ordnance left over from the days when the dunes were used as a bombing and gunnery range (1940s through 1960s). Although military teams have swept the area on several occasions, items of ordnance are periodically exposed by shifting sands.

Solitude: Despite the presence of occasional OHV traffic and resultant vehicle tracks, opportunities to find solitude remain good to outstanding. The undulating topography shields users and muffles vehicle noise, and windstorms periodically erase tracks, providing a feeling of remoteness and solitude.

Primitive and Unconfined Recreation: Opportunities are good in spite of the presence of occasional OHV traffic. The level of primitive recreation use is limited primarily by natural environmental factors, such as the difficulty of hiking in soft sand, difficulty of navigation in the complex maze of dunes, and lack of water sources. The WSA boundaries are not readily accessible by two-wheel drive vehicles, which further limits use. The presence of tracks and sounds of vehicle operation reduce the primitive recreation potential of the area for some users.

Special Features: Special features of WSA 362 are similar to those of WSA 360. The known occurrence of some sensitive plant and wildlife species is greater in WSA 362 than is WSA 360. However, two sensitive plant species recorded from WSA 360 are not known to occur in WSA 362.

Following the identification of the WSAs, BLM studied them as part of the Desert Plan preparation process. The Desert Plan preliminarily recommended the part of WSA 360 corresponding to the Algodones Natural Area as suitable for wilderness designation. WSA 362 was recommended as non-suitable because the unit was considered unmanageable as wilderness, and in order to provide for continued low levels of motorized recreational use and potential energy leasing. If Congress accepts BLM's recommendation for WSA 362, it will be managed as Class L to provide protection for sensitive biological resources.

Only Congress can designate wilderness or release a wilderness study area for multiple use. Until Congress acts on BLM's recommendations, both WSA 360 and WSA 362 are managed according to the BLM Interim Management Policy for Lands Under Wilderness Review (IMP). This policy prohibits any actions which would impair the suitability of the WSAs for future designation as wilderness.

VISUAL RESOURCES

The scenic quality of the recreation area has been evaluated using BLM's Visual Resource Management System. Three scenic quality rating units fall wholly or partially within the area: East Mesa, Secondary Dunes, and Primary Dunes. East Mesa's scenic quality ranges from "poor" to "medium," while both the Primary and Secondary Dunes exhibit "good" scenic quality.

The following Visual Resource Management classes have been assigned:

Class II: Areas where changes in line, form, color, and texture will be permitted, but should not be evident. All dune areas are included in this class, which covers the majority of the recreation area.

Class III: Areas where changes may be noticed but the overall landscape remains dominant. This class includes the Boardmanville area south of Highway 78 and east of the railroad tracks; and East Mesa immediately south of Highway 78 and west of the Gecko Campground area.

Class IV: Areas where changes may alter the landscape, but the changes should appear to be natural. This class comprises the remaining portion of East Mesa within the recreation area.

MINERAL AND ENERGY USES

Oil and Gas Leases

A number of oil and gas leases have been issued, mainly in southern WSA 360, the Glamis/Gecko Open Area, and in WSA 362. Leasing took place within the WSAs in 1981 and 1982 prior to a moratorium on WSA leasing. No development has taken place on any of the leases, and development potential is low due to geologic conditions. The current leases will expire after 10 years or when the lessee voluntarily drops the lease or loses it due to failure to pay rental, whichever occurs first. In the event of Congressional release of one or both of the WSAs prior to lease expiration, development could occur.

If existing leases expire while the areas are in a WSA or designated wilderness status, lease areas within WSAs will be removed from consideration for leasing, while those on other public lands will be eligible for inclusion in the simultaneous oil and gas leasing system.

Geothermal Leases

Two Known Geothermal Resource Areas (KGRAs) underlie the recreation area. The Glamis KGRA occupies an area along Highway 78 extending up to two miles north and three miles south of the highway (25,460 acres total). The northern third of the Glamis KGRA is in WSA 360. The Dunes KGRA occupies 16 sections of East Mesa and adjacent dunes in WSA 362 (7,680 acres total).

The geothermal potential of the Glamis and Dunes KGRAs is considered fair for high temperature electrical power generation, and excellent for low temperature applications. However, industry interest in the KGRAs appears to be minimal, since no applications have been filed. BLM prepared an EA for geothermal leasing in the recreation area in 1981. The resulting decision of the California State Director was that the north half of the dunes system (Mammoth Wash Open Area, WSA 360, and the Glamis-Gecko Open Area) be closed to all geothermal leasing. The dunes south of the Glamis-Gecko Open Area would be open to leasing subject to a no surface occupancy stipulation. All areas outside the dunes proper are open to leasing with appropriate mitigations. WSA 362 is not currently under consideration for leasing because of the moratorium on leasing in WSAs.

Saleable Minerals

All sand and gravel sales activity in the recreation area is found on the Glamis-Boardmanville Class M lands. Free-use and sales permits have been issued for sites in Sections 19, 22, 23, 24, 26, 27, and 34, T. 13 S., R. 18 E., SBM. Sections 22, 23, and 24 are withdrawn from mineral entry for the purpose of facilitating sand and gravel extraction. The gravel pit sites in this area are frequently used as informal campsites by OHV recreationists seeking to escape the crowds around Glamis.

Mining Claims

Mining claims in the recreation area are located within the Glamis-Boardmanville Class M lands in Sections 19, 21, 25, 26, 27, and 28, T. 13 S., R. 18 E., SBM, and Pilot Knob Mesa Class L lands in Sections 17 through 21 and 27 through 32, T. 15 S., R. 20 E., SBM. No mineral extraction has occurred in these areas, and potential for practical extraction appears to be low.

LAND OWNERSHIP AND USE AUTHORIZATIONS

Total acreage within the recreation area is 194,571 -- 184,311 acres are public lands and 10,260 acres are in state or private ownership. (See RAMP Tables 1 and 2, page 8).

Navy Withdrawal and Navy/BLM Cooperative Agreement

The U.S. Navy is currently making application for withdrawal of acreage corresponding to Range Safety Zone A surrounding their targets 95 and 68, which are used for bombing and strafing practice by aircraft. Targets 95 and 68 are located on East Mesa, on the north and south sides of Highway 78, respectively. Because recreational use from the Gecko area has at times overflowed into the Target 68 area, this target was included within the recreation area boundary to insure that public safety would be considered in the RAMP. Therefore, approximately 4,880 acres of the Target 68 withdrawal fall within the boundaries of the recreation area. This acreage will be closed to public entry. The area surrounding the withdrawals encompassing Range Safety Zones B and C is subject to a proposed BLM/Navy Cooperative Agreement, to assure that public uses can continue but that uses incompatible with the military operations do not occur. The cooperative agreement area covers roughly the western two-thirds of WSA 360, the western half of the Glamis/Gecko Open Area, and the remaining portion of the recreation area west of the old Coachella Canal and not withdrawn to the Navy. The Navy will be granted a right-of-way corresponding to Range Safety Zone B to assure continuation of low-level flight by Navy aircraft approaching the targets.

The withdrawal, cooperative agreement, and right-of-way were included in 1985 Amendment #1 to the California Desert Plan. Under terms of Amendment #1, public lands in Range Safety Zone B around Target 68 (west of the Old Coachella Canal) were closed to vehicle use in order to protect public safety.

Utility and Transportation Rights-of-Way

Two major transportation rights-of-way (State Highway 78 and Interstate Highway 8) cross the recreation area in an east-west direction. The Southern Pacific Railroad right-of-way forms much of the east boundary of the area. Approximately eight miles of the railroad right-of-way in the Glamis area is included within the recreation area.

The only major existing utility corridor within the recreation area passes through the Buttercup Valley Open Area parallel to Interstate 8. Existing facilities include a 500-KV transmission line and a number of smaller power and telephone lines. Powerlines also parallel the new Coachella Canal and Southern Pacific Railroad. A high-pressure gas pipeline is located within the railroad right-of-way. A microwave relay tower is located two miles west of Ogilby townsite. A current right-of-way project proposal involves a buried telephone line along Highway 78.

Bureau of Reclamation (BR) Withdrawals

While most BR withdrawn lands have been relinquished within the recreation area boundary, some of the lands around the U.S. Navy East Mesa target areas and between the old and new Coachella canals remain withdrawn. Under terms of a 1978 agreement, BLM has recreation management responsibility for these withdrawals but must obtain BR concurrence on all management actions. In addition, BR retains a withdrawal on the rights-of-way of the new Coachella Canal and All-American Canal (1,000 feet on either side of the canal center-line.) These rights-of-way are not covered by the 1978 agreement. All BLM management programs initiated within the canal rights-of-way must be approved by BR. BR programs are the paramount use on all BR withdrawn lands. The most significant BR program potentially affecting the recreation area in the near future is the proposal to construct a new concrete-lined All-American Canal. In the recreation area, this new canal would be constructed immediately adjacent to the present canal on the north side.

Land-Use Permits

Land-use permits are issued within the recreation area principally for commercial filming, mobile recreation vending, and apiary sites. Commercial filming takes place more frequently in Buttercup Valley than anywhere else, but also south of Highway 78 and along the Imperial Sand Dunes (Gecko) Road. Filming companies generally prefer readily accessible locations close to a paved road.

Mobile vendors typically locate in the areas of high visitor concentration - near Gecko Campground, Glamis, Grays Well, and near Buttercup Valley. Typical goods and services are food, ice cream, firewood, t-shirts, and ATV rentals, although permits have occasionally been issued for more unusual services, such as body painting. BLM's policy has been to let the market determine the viable vending operations, with

permits being issued for any vending activity that meets legal requirements and does not conflict with BLM management objectives.

Apiary sites are at numerous locations along both the old and new Coachella canals. Location of these sites is determined by policies established by El Centro Resource Area's Apiary Management Plan. Hives must not be located within one mile of concentrated recreational use zones.

PRIVATE BUSINESSES - RECREATION SERVICES

Three businesses, two at Glamis and one at Boardmanville, depend heavily on sand dunes recreationists to make their operations viable. The three businesses sell souvenirs, camping supplies, snacks, cold drinks, gasoline, OHV repair services, and miscellaneous items normally available at convenience type stores.

Besides these local businesses, the recreation area has an economic influence on gasoline service stations, restaurants, and convenience stores in nearby towns, principally Brawley, El Centro, and Blythe, California and Yuma, Arizona. Visitors pass through these towns on their way to and from the recreation area, and often purchase gasoline and food enroute. Purchases are normally limited to these items, with visitors usually equipping themselves with the major needs for their trip before leaving home. The recreation area does not generate much motel business, since the vast majority of visitors camp on site.

CHAPTER 4
Environmental Consequences

CHAPTER 4

ENVIRONMENTAL CONSEQUENCES

This chapter focuses directly on the issues identified in Chapter 1. The environmental impacts of each alternative are described issue by issue. The environmental impacts of these alternatives on the area's other resources have also been analyzed and have been found to be insignificant.

Because of the general nature of this analysis and the lack of numerical and statistical information regarding the area's resources, impacts in this chapter are often expressed in relative terms. For the purpose of this analysis the meanings of these terms are as follows:

Negligible impact - the degree of anticipated environmental impact is considered less than minor.

Minor impact - comparatively unimportant; in terms of the area's vegetation or wildlife resources, a minor impact is one affecting a specific group of individuals of a population in a localized area for one generation or less; the integrity of the regional population is not likely to be affected.

Moderate impact - an effect sufficient enough to cause a change in the abundance, distribution, or quality of a resource. In terms of the area's vegetation and wildlife, the abundance or distribution of a portion of the regional or local population would change over more than one generation, but would not affect the integrity of the regional population as a whole.

Major impact - an effect sufficient enough to cause a major change in the abundance, distribution, or quality of a resource. In terms of the area's vegetation and wildlife, the abundance or distribution of the regional or local population of a species would decline beyond which natural recruitment would not likely return that population to its former level within several generations.

Impacts may be either positive or negative, and are measured in relationship to the current resource situation or condition. Actions which maintain current conditions are considered to have negligible impact, even if the resource situation or condition would deteriorate if the action were not implemented. Only actions which actually improve resource conditions in relationship to the current situation are considered to have a positive impact.

The projected future use levels, use densities, and levels of closure violations are estimates. They were compiled using 1985 base data, information on use trends from 1978 to 1985, and the professional judgment of El Centro Resource Area staff.

ALTERNATIVE 1 - PROPOSED ACTION

Impacts on OHV Recreation

Overall, the proposed management prescriptions will have a moderate positive impact on OHV recreation. The acreage available for intensive OHV recreation will not significantly change. As use levels rise, conditions within Class I areas will become more congested. At the same time, proposed access and facility development projects will significantly improve distribution of use within available Class I lands, thereby reducing some congestion. Facility development prescriptions will make adequate camping space available and provide basic sanitary facilities.

Adoption of a comprehensive operations and maintenance program will insure adequate staffing to meet maintenance and patrol requirements. Acquisition of legal access and inholdings within Class I areas will insure continued availability of these lands for OHV recreation.

Implementation of a concession leasing program at Levels 3 and 4 will enable existing Class I lands to accommodate anticipated camping demand in the 1990s while further improving trash and sanitary facilities, at minimal cost to the government. Development of RV park facilities will also extend the OHV use season into the summer months for those having RVs equipped with air conditioning. This will result in riding opportunities under less congested summer conditions.

The wilderness and resource protection prescriptions will restrict development of OHV recreation facilities to Class I areas. Preparation of a habitat management plan and adoption of a program of sensitive resource studies and monitoring may result in restrictions of camping and riding within portions of Class L areas if unacceptable impacts are documented. However, acquisition of more reliable data on the distribution and condition of sensitive resources will also make it possible to develop protective measures directed at more specific locations and problems in lieu of large precautionary closures.

Anticipated OHV use levels and use densities by use zone are presented in Table EA-1. Comparison of this table with RAMP Table 6 (No Action Alternative) will assist in understanding the anticipated impact of the RAMP on distribution of use.

The greatest single change in the distribution of OHV use will occur at Level 4 in the event of development of legal access and facilities at Mammoth Wash. If BLM camping facilities are installed, use will increase from the current 19,000 VUD annually to approximately 100,000 VUD. Development of a concession RV park and store will result in an additional 50,000 to 100,000 VUD annually (similar to or somewhat greater than the 1985 use level at the Buttercup and Grays Well areas south of Interstate 8). This will divert a sizable amount of use away from the Glamis/Gecko Open Area, thereby alleviating congestion there. However, in so doing, the uncrowded "backcountry" character of Mammoth Wash (which is a major appeal to many of its users) will be lost.

Until 1995, use of the Glamis/Gecko Open Area is expected to increase at a slightly higher rate than under the no action alternative. This is because improved access and sanitation facilities will draw more visitors into this area. At the same time, use will be diverted away from adjacent overflow areas on Pilot Knob Mesa, East Mesa, and east of Glamis. After 1995, development of Mammoth Wash will divert approximately 150,000 VUD/year away from Glamis/Gecko. At the same time, development of concession facilities at Gecko and Glamis will draw camping use into this Class I area and away from adjacent Class M and L lands on East Mesa, Pilot Knob Mesa, and east of Glamis. Redistribution of use away from Glamis/Gecko to Mammoth Wash will more than offset the increase in use from adjacent Class L and M lands. The net effect at Glamis/Gecko will be reduced user density (reduced congestion), when compared to the no action alternative.

Use of the central dunes Class L and WSA 362 lands can be expected to increase from 6,000 VUD in 1985 to 21,000 VUD in 2000 A.D. This will increase average user density from the current estimate of less than 0.1 VUD/acre/yr. to 0.3 VUD/acre/yr. This is still a very low user density, and is lower than that predicted for the no action alternative.

Improved accommodation of use within Class I areas will result in a reduced rate of increase on Class L and M lands, compared to rates expected under the no action alternative. Camping use of Pilot Knob Mesa, East Mesa, and lands east of Glamis along Highway 78 is expected to stabilize between 1995 and 2000, as OHV users make use of high-density concession RV campground facilities in Class I areas.

Use of the Buttercup Valley Open Area will increase at a higher rate than that anticipated under the no action alternative, due to improvement of access and facilities. Development of

TABLE
EA-1

ANTICIPATED OHV USE LEVELS AND USE DENSITIES
UNDER THE PROPOSED ACTION
IMPERIAL SAND DUNES RECREATION AREA

Use Zone		1985		1995		2000	
	Projected Average Annual Increase	VUDs	(VUD/Acre/Yr.)	VUDs	(VUD/Acre/Yr.)	VUDs	(VUD/Acre/Yr.)
Mammoth Wash Open Area (11,000 acres)	0% (1985-1995) 34% (1995-2000)	19,000	1.7	19,000	1.7	150,000	13.6
Glamis/Gecko Open Area (22,000 acres)	3.9% (1985-1995) 2.8% (1995-2000)	489,000	22.2	730,000	33.9	834,000	37.9
WSA 362/ Central Dunes Class L (65,000 acres)	8%	6,000	0.1	14,000	0.2	21,000	0.3
Ogilby/Pilot Knob Mesa (15,300 acres)	8% (1985-1995) 3% (1995-2000)	26,000	1.7	60,000	3.9	70,000	4.6
Buttercup Valley Open Area (12,500 acres)	5.8%	223,000	17.8	404,000	33.1	550,000	44.0
East of Glamis (Highway 78) (9,300 acres)	9.3% (1985-1995) 0% (1995-2000)	16,000	1.7	40,000	2.9	40,000	2.9
East Mesa near Dunes (29,000 acres)	8.2% (1985-1995) 0% (1995-2000)	19,000	0.6	45,000	1.6	45,000	1.6
TOTAL[1] (160,000 acres)	4.9%	792,000	5.0	1,295,000	8.1	1,689,000	10.6

Note: Rationale for expected trends in use are presented in the text under "Impacts on OHV Recreation." All figures except those for 1985 are estimates based on the professinal judgement of El Centro Resource Area staff. This table is intended to help the reader visualize the general trends in use discussed in the text. It is in not intended to be a precise use prediction.

[1]Density is based on 160,000 acres which are available for OHV use in the recreation area.

Mammoth Wash is not expected to result in significant redistribution of use away from Buttercup Valley, because most Buttercup users come from San Diego or Arizona, areas not conveniently accessible to Mammoth Wash even with the extension of Montgomery Road. While user density in the Buttercup area will be greater than any other part of the recreation area by 2000 A.D., improved facilities will accommodate the use with fewer safety and sanitation problems than would be the case under the no action alternative.

Impacts on General (Non-OHV) Recreation

Overall, the proposed prescriptions will have a minor positive impact on general recreation. Dispersal of OHV camping use away from Highway 78 and development of Osborn Park for its original intended purpose as a scenic viewpoint and interpretive site will enhance general public sightseeing and enjoyment of the dunes. Improved access in the Grays Well area and implementation of the Plank Road ACEC Plan will enhance general public enjoyment of this unique historic resource.

Impacts on Wilderness Values

Naturalness: Overall, the proposed prescriptions will result in minor negative impacts to the naturalness of WSA 360. Increased boundary closure signing, erection of physical barriers on boundaries between the WSA and intensive use areas, development of an OHV access corridor to the west around WSA 360, and increased patrol will reduce closure violations and enhance naturalness (see Table EA-2).

TABLE EA-2 ANTICIPATED INCIDENCE OF CLOSURE VIOLATIONS ALGODONES NATURAL AREA (WSA 360) UNDER THE PROPOSED ACTION

Disposition of Incident	1985 (actual)	1995	2000
Evidence of violation observed - no violator apprehended	348	100	50
Verbal Warnings Issued	26	25	25
Written Warnings Issued	5	25	25
Citations Issued	64	200	150
TOTAL KNOWN VIOLATIONS	443	350	250

Increased use of the Mammoth Wash Open Area at Level 4 will place increased pressure on the north closure boundary. However, increased signing and patrols will counter this. Nevertheless, moderate negative impacts will occur to the nonsuitable portion of the WSA which extends north of the closure boundary (approximately 1,200 acres). These impacts will take the form of increased presence of OHVs, formation of additional trails in vegetated areas, and increased numbers of tracks in the sand. These impacts will constitute impairment of the nonsuitable acreage, though not of the suitable (Class C) lands.

Overall, the proposed management prescriptions will result in negligible to minor negative impacts to naturalness within WSA 362. Direct impacts of facility development will be confined within Class I areas 3/4 mile or more from the WSA boundary. As general OHV use levels within the recreation area increase, use of the WSA will increase, resulting in increased occurrence of tracks in the dunes. However, OHV use of the WSA is expected to be slightly less overall under the proposed action than under the no action alternative, because of anticipated reductions in the rate of increase in the Glamis/Gecko and Ogilby areas. Overall negative impacts to naturalness are expected to remain minor because use density will remain very low. OHV use within vegetated areas is largely confined to sand trails which have existed in the WSA since prior to the wilderness inventory, although some new sand trails may form as time passes. Impacts to sensitive vegetation and wildlife will be closely monitored, and use restrictions will be implemented as necessary to protect viable populations of those species.

Solitude: Overall, impacts to opportunities for solitude will be negligible within WSA 360. Opportunities are expected to remain outstanding. Development of a trailhead parking area will result in a projected increase in visitation from 500 VUDs in 1985 to 2000 VUDs by the year 2000. However, ample opportunities to find solitude will continue to be provided by the area's substantial size and the shielding effect of topography and vegetation.

Overall, minor negative impacts to solitude will occur within WSA 362. Opportunities will remain good to outstanding, depending on one's location within the WSA, the time of the week, and season of the year. As at present, the principal factor limiting the feeling of solitude will be the presence of vehicle tracks. Many tracks are only temporary, however, and are removed by windstorms.

Primitive or Unconfined Recreation: Overall, minor positive impacts to opportunities for primitive and unconfined recreation will occur in WSA 360. Development of a relatively secure trailhead parking area and distribution of information on primitive recreation opportunities through the recreation area brochure will make these opportunities more readily available to the public.

Impacts to opportunities for primitive and unconfined recreation within WSA 362 will be negligible. As has been the case since before the area was established as a WSA, primitive recreationists are likely to encounter evidence of vehicle use in the form of tracks. However, with some preplanning to avoid major holiday weekends, it will continue to be quite possible to spend a weekend in the WSA without actually encountering a vehicle. Primitive recreation use of WSA 362 is expected to remain at a very low level, largely because of the remoteness of the WSA.

Special Features: Impacts of proposed management prescriptions to the dune formations themselves will be negligible in both WSA 360 and WSA 362. Impacts to sensitive biological resources are discussed by species as separate issues.

Impacts on Burro Mule Deer Habitat

Overall, the proposed management prescriptions will result in minor negative impacts to burro mule deer habitat. Impacts to deer habitat will be negligible at levels 1 through 3. Increased use of the Mammoth Wash Open Area at Level 4 will result in moderate negative impacts to the microphyll woodland habitat areas where two of the windmill wildlife water sources have been developed. Both of these water sources are within the open area. However, one of the two is also within the non-suitable northern portion of WSA 360.

Most increased use will be day use. The windmills are in remote locations. An increased incidence of intentional or unintentional harassment will result from passing OHV traffic. No significant impacts are expected to trees, since increases in camping activity are expected to be minimal. However, an increase in OHV trails in the vegetated woodland areas is expected. Most OHV activity will be during the winter season. However, if a concession RV park is developed, use in summer (including the September fawning season) would be expected to increase, though to no more than 20% of winter use levels.

The impact of increased OHV use is limited somewhat by the fact that these two northern windmill sites are regarded as being of

only fair quality compared to the five sites further south in the closed area. The better sites to the south would receive negligible impacts. For this reason, overall impacts to deer habitat are considered minor although impacts to the two northern sites will be moderate.

Impacts on Couch's Spadefoot Toad Habitat

Overall, the proposed management prescriptions will result in negligible to minor negative impacts to Couch's spadefoot toad habitat. Potential habitat within WSA 360 will receive negligible impacts overall. Minor to moderate impacts may occur at Ogilby, if the toad occurs near the camping area. Impacts within Class M at South Ogilby Dunes are also expected to be very minor, since use will remain at very low levels.

Localized moderate negative impacts are anticipated at low areas within Class I around Glamis and in gravel pits located in Class M east of Glamis. Laboratory research indicates that sustained loud OHV noise may cause emergence of spadefoot toads at times when conditions are not suitable for mating. This phenomena has not been confirmed under field conditions. If lab results are valid, sustained concentrated OHV use in the Class I sites could result in local changes in species abundance and distribution (i.e., moderate impacts). Death of individual animals results from collisions with OHVs. However, the incidence of collisions is limited since the toads are only on the surface for a relatively short period. Despite localized moderate impacts, it is not anticipated that the proposed action will result in more than minor overall impacts to the local population, and negligible impacts to the total population of the species.

Impacts on Candidate Species for Federal Listing as "Threatened" or "Endangered"

Astragalus magdalenae var. peirsonii (Peirson's Milkvetch): Overall, impacts of proposed management prescriptions are expected to produce a minor negative impact to Peirson's Milkvetch. This species is widely distributed within the dune system. Localized moderate impacts will occur along the Imperial Sand Dunes (Gecko) Road at parking pad and campground construction sites in Class I. Experience at Gecko Campground indicates that the combination of construction activities and subsequent intensive use near the facility results in total removal of all vegetation within a radius of 1/8 mile (660 feet) of the facility and partial removal within an additional 1/8 mile. Beyond that point, impacts are largely restricted to trails or sand highways which develop through vegetated areas.

Negligible impacts are expected within WSA 360. Overall, minor negative impacts are expected within Class L and WSA 362 lands. Localized moderate impacts may occur along established sand trails where soil compaction and vehicle traffic are sufficient to prevent regrowth. However, use of the WSA 362 will remain low. User densities are expected to remain below 0.3 VUD/acre/yr. by 2000 A.D.

In conclusion, while minor negative impacts to Peirson's Milkvetch are anticipated overall, the species is expected to maintain a viable, healthy population within the total dune system. This species along with other sensitive species will be closely monitored to identify any unexpected impacts and provide a basis for protective measures if necessary.

Helianthus niveus ssp. tephrodes (Silver-leafed dune sunflower): This species occurs in a continuous distribution from Buttercup Valley to Mammoth Wash on active dune surfaces, principally of the primary dunes. The areas of highest density for this species are in WSA 360 and northcentral WSA 362. Some plants are present in the facility development zone in the Gecko Campground area, but prime habitat is in the higher dunes to the east. Negligible impacts are anticipated within WSA 360, with minor negative impacts in other areas.

Principle impacts to this species are expected from occasional collisions with vehicles traversing active dune surfaces in the highest dunes. Such collisions occur with greatest frequency within Class I areas and relatively infrequently in the central dunes Class L area. Even with anticipated increases in use by 2000 A.D., a viable, healthy population is expected to be maintained. However, the species will be closely monitored to determine actual trends.

Palafoxia arida var. gigantea (Giant Spanish needle): The giant Spanish needle is an annual plant occurring throughout the dune system on both stable and active dune surfaces. It would be logical to expect this annual species to be subject to greater annual population fluctuations than perennial species, based on fluctuating rainfall or other environmental conditions. One objective of baseline studies and monitoring proposed by the RAMP will be better definition of critical environmental factors influencing this species.

The species is present in low densities near proposed facility developments. Highest densities are within WSA 360, southern WSA 362, and Class L lands between WSA 362 and Interstate 8, where use density is expected to remain low. Negligible impacts are expected within WSA 360, with minor negative impacts in other areas.

Desert Tortoise: The Desert Tortoise is thought to be present in low numbers around Mammoth Wash and in the secondary dunes of the Mammoth Wash Open Area and WSA 360. The population and occurrence will be assessed through Level 3 baseline data studies prior to initiation of Mammoth Wash development at Level 4.

Assuming the desert tortoise is present, the proposed management prescriptions will have a negligible to minor negative impact through Level 3. Impacts will remain negligible within the Class C lands of WSA 360 at Level 4, but moderate negative impacts will occur to tortoise habitat within Class I. Increased OHV use would result in inadvertent destruction of some tortoise burrows and direct death or injury of tortoises run over.

Andrew's Dune Scarab Beetle: Andrew's dune scarab beetle has been found primarily in the secondary dunes within WSA 362, although it is also known to occur at other locations throughout the secondary dunes and at isolated sites in the primary dunes. Overall, the proposed management prescriptions are expected to have a minor to moderate negative impact to the beetle. Since no facility construction is planned in the secondary dunes, direct impacts from facility construction are expected to be minor to negligible. However, grading of the access road south of Glamis and installation of restrooms and trash stations will result in increased utilization of existing campsites on the creosote bush flats bordering the secondary dunes. Currently, approximately 50% of the total use on the Glamis side of the Glamis/Gecko Open Area occurs on the flats south of Glamis. This is expected to increase to approximately 60% at Level 4, as use is shifted away from Highway 78 and into Class I. This will result in corresponding increases in OHV use of the adjacent secondary dunes, resulting in possible minor to moderate negative impacts.

Impacts within WSA 362 and Class L are expected to be minor overall. However, use will increase, especially within two miles of Ogilby and the northeastern WSA/Class I boundary. Grading the first three miles of the road south of Glamis may also encourage some users to drive south along the road to camp in Class L away from the congestion further north, resulting in increased OHV use of the WSA. The proposed monitoring program will establish a series of sampling points in the secondary dunes between Glamis and Ogilby to determine the actual extent of impacts.

Use of the South Ogilby area, which will remain designated Limited for OHV use, is expected to remain stable at a very low level. Very minor negative impacts from vehicle use are anticipated.

Flat-Tailed Horned Lizard: The flat-tailed horned lizard occurs in sandy creosote bush scrub flats found east and west of the dune system. These same areas are popular as staging and camping areas for OHV recreationists. Minor to moderate negative impacts are possible from implementation of Alternative 1, depending on the population actually present.

Most recorded locations for the flat-tailed horned lizard are from the Gordon's Well (Dune Buggy Flats), Ogilby, and South Ogilby areas, although isolated occurrences of lizards or scat have been reported from the east and west sides of the Glamis/Gecko Open Area and along the western boundary of WSA 362.

The high relative abundance recorded from the Gordons Well/Dune Buggy Flats area in a 1979 survey has apparently severely declined. A 1986 BLM survey found no lizards and few scat in the Gordons Well/Dune Buggy Flats area and a significant decline on adjacent East Mesa Class M Lands (Olech, pers. comm.). The current trend is toward increased camping activity on Class M lands on East Mesa.

Determination of flat-tailed horned lizard relative abundance on Pilot Knob Mesa, at Ogilby, and at South Ogilby will be a priority for proposed Level 2 studies. Current information in the area is lacking. Sites at which lizards or scat have been recorded are two or more miles to the east of the Ogilby campsite, but the lizard may occur at or near the campsite as well. Since the species appears to be impacted most by camping and staging activity, negative impacts may be occurring if the lizard is present near the camping area. However, relatively minor or negligible impacts would be expected from use of the campsite to recorded populations further east near Ogilby Road. Most OHV traffic heads west into the dunes rather than east. Very little camping or staging occurs at South Ogilby, and this is not expected to change under the proposed action. Unless an unanticipated upsurge in use occurs, impacts in that area should be very minor.

Despite isolated sightings, the flat-tailed horned lizard is not expected in large numbers in the marginal habitat near facility development zones in the Glamis/Gecko or Mammoth Wash Open Areas. All construction sites will be examined for evidence of the species as part of the site-specific EA process prior to construction. Impacts are expected to be minor to moderate near Class I facility developments.

Colorado Desert Fringe-Toed Lizard: No systematic inventories of this species have been performed, but it is expected to occur throughout the primary and secondary dunes. Its habitat is widespread within the recreation area and surrounding regions. Large portions of the habitat are located within either WSA 360 or WSA 362 (where OHV use occurs at low levels). Negligible impacts are expected within WSA 360. Minor negative impacts are expected overall, with localized moderate impacts near facility developments in Class I areas.

Impacts on Other Plant Species Considered Sensitive

Ammobroma sonorae (Sand Food): This plant is a parasite which establishes subterranean connections with the root system of the common dune shrub Coldenia plicata and possibly several other

species. It has been recorded from throughout the dune system, but highest known densities are in central WSA 362 and just north of the Mexican border near Buttercup Valley and the South Ogilby Dunes.

Overall, minor negative impacts are anticipated from implementation of the proposed action. While increasing user densities in the Buttercup Valley area may have a moderate negative impact on the population there, use levels will remain low in WSA 362 and at South Ogilby.

Astragalus lentiginosis var. borreganus (Borrego milkvetch): The essential habitat of this species is small dune depressions 10 to 80 yards across on the east side of the dune system. It is known only from WSA 362 and adjacent Class L lands, as well as South Ogilby dunes. Increasing OHV activity in the secondary dune depressions south of Glamis and near Ogilby will result in some destruction of individual plants, resulting in minor to moderate impacts in localized areas. Very minor impacts are expected in the South Ogilby area, because use is not expected to increase in that area.

Cryptantha costata (Ribbed cryptantha): This species is known only from east-central WSA 360. Its recorded location is well within the closed area. Impacts are expected to be negligible.

Lyrocarpa coulteri var. palmeri (Coulters lyrepod): This species is known only from east-central WSA 360. Its recorded location is well within the closed area. Impacts are expected to be negligible.

Croton wigginsii (Wiggins' croton): Wiggins croton is very common within the primary dunes, although the Imperial Dunes and nearby areas appear to be its only habitat north of the Mexican border. Highest densities are in southern WSA 360 and WSA 362, although the plant is also one of the most common shrubs along the Imperial Sand Dunes (Gecko) Road, where it occupies the road shoulder as well as surrounding lands. The population of this species within the dune system is large, healthy, and viable, and is expected to remain so. Impacts from the proposed action are expected to be negligible within WSA 360. Localized moderate impacts will occur in the area of facility developments on Class I lands, with minor negative impacts in other areas.

Impact on Private Recreation Service Businesses in Imperial County

Overall, the proposed action will have a minor to moderate positive impact on recreation service businesses. The plan will eliminate competition between mobile vendors and private businesses at Glamis and Boardmanville within a three mile radius of the businesses. This is expected to have a moderate positive impact on the businesses at Glamis and Boardmanville.

On the other hand, development of a concession store and RV park in the Gecko area will have a negative impact to the businesses at Glamis and Boardmanville. The impact is minimized, however, by the timing of implementation. By 1995, the sand dune visitor market will be big enough to accommodate an extra commercial establishment in the Glamis/Gecko Open Area.

Development of a concession RV park south of Glamis will have a moderate positive impact to the general store and OHV repair businesses at Glamis and Boardmanville, by introducing larger numbers of visitors. Direct competition with adjacent private businesses will be avoided, because the concession RV park will not be implemented if similar facilities serving the same purpose are constructed on private land.

The proposed concession at Grays Well will have a negligible impact on private businesses at Glamis or Boardmanville.

Although recreational use of the dunes has a moderately positive impact on gas stations and restaurants in the Imperial County area, the increases in use anticipated between 1985 and 2000 are not significantly different between the proposed action and no action alternatives. The overall impact on these businesses will therefore be negligible through Level 3. Construction of concession stores and gas stations in the dunes at Level 3 and above may have a minor negative impact to similar businesses in surrounding communities. However, the significant increase in numbers of visitors will most likely insure an ample market for regional businesses. Overall, the new concession facilities will have a moderate positive impact to the regional economy. Establishment of stores and RV parks within the dunes will result in a higher percentage of sand dunes recreation dollars spent within Imperial County rather than in the coastal or Arizona cities where most visitation originates.

Impact on Public Health and Safety

The proposed action will have a major positive impact on public health and safety in the recreation area. The RAMP provides for resolution of the long-standing trash problem through installation of contract trash stations, an enlarged maintenance staff, and increased volunteer group cleanups. Installation of restrooms and dump stations in areas of major use concentration will provide for proper disposal of human waste.

Public safety will be one of two primary themes emphasized in interpretive programs. New supplementary rules will prohibit use of glass beverage containers (reducing the broken glass problem) require whip masts and flags on OHVs (thereby increasing visibility), and establish speed limits in concentrated use zones. An enlarged Ranger force will improve enforcement of registration, noise, and equipment requirements, as well as rules of vehicle operation. Operation of the

Cahuilla Ranger Station will be expanded from 6 weekends to 30 weekends each year. Public emergency telephones will be installed at Mammoth Wash, Cahuilla Ranger Station, and Buttercup Valley.

Recreation Technicians trained as emergency medical technicians will reside at Cahuilla Ranger Station and patrol the dunes during the winter use season. A volunteer dune patrol will assist BLM personnel, and encourage safe riding practices by holding public OHV safety workshops. A comprehensive interagency safety plan will be developed to encourage accident prevention and improve emergency responses.

Installation of numbered orientation posts in Class I areas will help visitors to find their way through the dunes and reduce emergency response time. New OHV corridors will help to guide visitors and to separate highway and off-highway use at Buttercup and south of Glamis.

Mitigation Measures

The following mitigation measures are proposed to reduce or eliminate negative impacts of Alternative 1, the proposed action. Additional mitigation measures will be developed as warranted based on the results of monitoring studies and site-specific EAs prepared for individual projects.

If ongoing monitoring studies determine that significant adverse effects are in fact occuring, appropriate protective measures will be taken. The nature of additional mitigation measures will depend on the nature and degree of actual impacts as determined through the ongoing studies. Possible measures could include erection of fenced exclosures, restriction of overnight use of Class L or M lands to discourage camping and staging, or area closures. Before closures will be implemented, every effort will be made to develop adequate protection measures short of any large-scale closure.

Impacts on Wilderness Values

1. Do not develop access and facilities at Mammoth Wash until after Congressional action on the wilderness recommendation for WSA 360.

   Discussion: This measure will prevent impairment of the wilderness suitability of 1,200 acres of WSA 360 located within the Mammoth Wash Class I lands.

Impacts on Burro Mule Deer Habitat

2. Prior to implementation of Level 4, install exclosure fences around the two northernmost wildlife windmills located within the Mammoth Wash Class I lands, to exclude OHVs from approximately 60 acres surrounding each windmill.

Discussion: This measure is to prevent disturbance of burro mule deer habitat from anticipated increases in OHV activity at Level 4.

Impacts on Couch's Spadefoot Toad Habitat

3. Initiate baseline and monitoring studies for this species in conjunction with the habitat management plan to be prepared in 1987.

   Discussion: This measure will serve to identify the occurrence of the species within the recreation area, and will help to identify if further measures, such as construction of exclosure fences around low areas, are necessary to maintain a viable local population.

Impacts on Andrew's Dune Scarab Beetle

4. If recreational use monitoring indicates a shift in use into Class L lands south of Glamis along the Southern Pacific Railroad, close the affected areas to overnight camping.

   Discussion: This measure will prevent encroachment of intensive camping activity onto Class L lands adjacent to the secondary dunes south of Glamis. It will serve to reduce potential impacts to Andrew's dune scarab beetle, burro mule deer habitat, flat-tailed horned lizard habitat, and sensitive plant species in Class L and WSA 362.

Impacts on Astragalus lentiginosis var. borreganus (Borrego milkvetch)

5. Where feasible in areas of documented or likely OHV impact, erect exclosure fences around the small dune depressions which constitute the primary habitat of this species.

   Discussion: The exclosures would be areas 10 to 80 yards in diameter in the secondary dunes. Possible locations include south of Glamis near major camping areas, near Ogilby, and in South Ogilby Dunes.

Impacts on the Flat-Tailed Horned Lizard

6. In order to prevent increased impacts from recreational use of lands within and adjacent to the Southern East Mesa ACEC, close the following East Mesa lands west of the Coachella Canal to overnight camping:

   T. 17 S., R. 20 E., SBM
   Sec. 19 (west of canal)
   Sec. 30 (west of canal)

T. 17 S., R. 19 E., SBM
Sec. 10
Sec. 11 (west of canal)
Secs. 13, 14
Sec. 15 (west of canal)
Secs. 22, 23
Sec. 24 (west of canal)
Sec. 25, 26, 27
Secs. 34, 35

These lands are located along BLM Route A-451 which connects Gordons Well with the Coachella Canal, four miles north of Gordons Well. Camping in this area will be restricted to the existing overflow campsite west of the canal in Section 31, T. 17 S., R. 20 E., SBM. In addition, posting of approved routes of travel will be improved in this area, and enforcement of the limitation to approved routes will be intensified.

Discussion: This area north and west of Gordons Well has received a dramatic increase in overflow camping use since 1978. The majority of this use is overflow from the adjacent sand dunes area. Closure of the lands to camping will eliminate the intensive riding activity which is normally found in proximity to campsites. This is expected to encourage recovery of flat-tailed horned lizard habitat within the East Mesa HMP area and ACEC. The lands will remain open to vehicle use on approved routes, as is the current situation. The Dune Buggy Flats area east of the canal will remain open to camping, as will the lands in Section 31 between the Gordons Well Interchange and Dune Buggy Flats. The new access road and facilities at Dune Buggy Flats will be constructed as prescribed in the RAMP.

Unavoidable Adverse Impacts

Vehicle use in the dunes will result in damage to or death of plant species driven over. Likewise, reptiles, insects, and other small dunes creatures will be injured or killed if hit by a passing vehicle. Depending on the species involved, these collisions will create a negligible to moderate impact to the regional population. Moderate impacts are possible to desert tortoise, Andrew's dune scarab beetle, flat-tailed horned lizard, and Astragalus lentiginosis var. borreganus. Minor overall impacts are possible to the Couch's spadefoot toad, Colorado Desert fringe-toed lizard, Astragalus magdalenae var. peirsonii, Helianthus niveus ssp. tephrodes, Palafoxia arida var. gigantea, Ammobroma sonorae and Croton wigginsii. Negligible impacts are expected to Cryptantha costata, and Lyrocarpa coulteri var. palmeri.

Minor negative impacts to burro mule deer habitat are anticipated in the event of development of access to and facilities at Mammoth Wash.

Although the overall impact to OHV recreation will be moderately positive, conditions within Class I use areas will become more congested. The sensitive resource monitoring program may detect impacts which will require restrictions on camping or riding within portions of Class L areas. While development of Mammoth Wash will resolve access, sanitation, and emergency response problems there, the current uncrowded "back country" character of the area will be lost.

Implementation of the BLM wilderness recommendation for WSA 360, combined with implementation of the proposed Imperial Sand Dunes RAMP, will result in moderate negative impacts to naturalness within the northern nonsuitable portion of the WSA (1200 acres) which lies within the Mammoth Wash Open Area, following Congressional release of the lands.

Implementation of the proposed RAMP will result in negligible to minor negative impacts to naturalness within WSA 362. Impacts will take the form of an increased frequency of tracks and development of some additional sand highways. However, overall use density will remain at a very low 0.3 VUD/acre/year. Development of new trails is therefore expected to be minimal, and wilderness suitability will not be impaired.

The overall impact of the plan on the recreation service economy of Imperial County will be moderately positive. However, concession development will result in some minor negative impacts to individual businesses at Glamis, Boardmanville, and in the surrounding communities in Imperial County.

Relationship Between Local Short-Term Uses of Man's Environment and the Maintenance and Enhancement of Long-Term Productivity

All present short-term uses will continue under the proposed action. Increased mineral development or other resource extraction activities which would decrease long-term productivity are unlikely. Implementation of the proposed action will have negligible to moderate negative impacts to sensitive plant and wildlife species, but viable regional populations will be maintained.

Irreversible and Irretrievable Commitments of Resources

No significant irreversible or irretrievable commitments of resources are anticipated.

ALTERNATIVE 2 - NO ACTION (No change from existing management)

Impacts on OHV Recreation

Overall, the No Action alternative will have a major negative impact on OHV recreation. Use levels will increase at approximately the same rate as under the proposed action. However, the use will be crowded into fewer parking areas within Class I and more extensively dispersed into Class L and M areas to which access is available.

Use of the Glamis/Gecko Class I lands in 2000 A.D. will be about 5% higher than under the proposed action while use of adjacent Class L and M lands will be about 40% higher. This difference will be caused by failing to develop Mammoth Wash as an alternate use area. As use increases, many users will be forced to return to Highway 78 to park on the road shoulder, much as they did in the early 1970s prior to construction of the Imperial Sand Dunes (Gecko) Road and Gecko Campground. Similarly, the shoulders of Gecko Road will become increasingly crowded with campers. Facilities at Gecko and Roadrunner Campgrounds will be totally inadequate to handle the demand, and maintenance of the facilities will be substandard. No concession RV parks will be developed to relieve some of the pressure. Those unable to squeeze into available Class I lands will increasingly turn to adjacent areas, along the Coachella Canal and Highway 78 east of Glamis.

Use of the Buttercup Valley Class I lands in 2000 A.D. will be about 5% lower than under the proposed action, while use of adjacent Class L and M lands will be about 50% higher. The toilets, telephone, and water supply at the Caltrans rest stop will be removed, with no alternate facilities available on BLM land. No concession store or RV park will be available to handle the increased demand. Increasing numbers of recreationists will camp at Ogilby and on East Mesa north and west of Gordons Well.

Use levels in the central dunes Class L and WSA 362 will increase at a slightly higher rate than under the proposed action, because of greater demand for use of the Ogilby campsite which will result from failing to develop adequate facilities to handle the demand at Buttercup and Glamis. OHV use of the central dunes will be in serious jeopardy, because of failure to closely monitor the status of sensitive species.

Use of the Mammoth Wash Open Area will remain stable due to the difficulty of access. It will remain a pleasant, uncrowded place to ride, for those who can reach it, despite some trash and sanitation problems.

Impacts on General (Non-OHV) Recreation

Overall, implementation of the no action alternative will have a moderate negative impact to general recreation. Osborn Park will not be available as a lookout and interpretive site, except on weekdays when OHV recreation is at a minimum. In addition, very little parking will be available along Highway 78 for sightseers. On most weekends, the driver of a highway vehicle will see little of the dunes, since undivided attention will be required to avoid both oncoming traffic and the RVs crowded on the south road shoulder.

The Plank Road Interpretive Site will be developed as prescribed in the Plank Road ACEC plan. However, access to the site will be less convenient for eastbound freeway traffic, since the Grays Well Road will not be connected to the Gordons Well Interchange. The Grays Well Road extension east to the Sand Hills Interchange may be blocked by sand dunes during the summer months due to a shortage of maintenance funds, leaving the Plank Road site inaccessible to highway vehicles.

Impacts on Wilderness Values

Naturalness: Overall, implementation of the no action alternative will result in minor to moderate negative impacts to the naturalness of WSA 360. Failure to improve signing and erect physical barriers along the boundaries with Class I areas, the lack of a legal OHV corridor around the WSA, inadequate patrol capability, and the crowding of OHV use along Highway 78 will result in loss of control of the closure violation situation (see Table EA-3). Increased OHV use of the WSA will result in a decline in naturalness, particularly in the southern third of the area. Some impairment of wilderness suitability will occur.

Despite the increased impacts to the southern part of WSA 360, impacts to the northern non-suitable portion of the WSA within the Mammoth Wash Open Area will be negligible under Alternative 2, since use of the Mammoth Wash Class I lands will not increase.

TABLE EA-3 ANTICIPATED INCIDENCE OF CLOSURE VIOLATIONS
ALGODONES NATURAL AREA (WSA 360)
UNDER THE NO ACTION ALTERNATIVE

Disposition of Incident	1985 (actual)	1995	2000
Evidence of violation observed - No violator apprehended	348	1000	1500
Verbal Warning Issued	26	100	150
Written Warning Issued	5	25	50
Citations Issued	64	150	150
Total Known Violations	443	1275	1850

Alternative 2 will result in impacts to naturalness within WSA 362 similar to those of Alternative 1, except in the immediate area of the Ogilby campsite, where impacts will be somewhat greater because use will be 35% higher than under the proposed action. Sensitive plants and wildlife will not be as closely monitored. Protective actions based on monitoring studies will be less likely to be implemented since negative impacts will not be so readily detected.

Solitude: Very minor negative impacts to opportunities for solitude are anticipated within WSA 360 but overall opportunities will remain good to outstanding. The feeling of solitude will decrease with the increase in tracks in the southern portion of the WSA, but it will still be very possible to find solitude.

Impacts to solitude will be minor within WSA 362, as in the case of Alternative 1, with the exception of moderate additional impacts in the Ogilby area.

Primitive and Unconfined Recreation: Negligible to minor negative impacts will occur within WSA 360. No trailhead parking area will be developed, and opportunities will not be publicized. Outstanding opportunities will remain for the few who use the area, however.

Impacts within WSA 362 will be identical to those of the proposed action.

Special Features: As in the case of the proposed action, impacts to the dune formations will be negligible. Impacts to sensitive biological resources are discussed by species as separate issues.

Impacts on Burro Mule Deer Habitat

Negligible to minor negative impacts are anticipated under Alternative 2. While OHV disturbance of windmill sites located within the Class I Mammoth Wash Open Area will remain stable, increased OHV disturbance of windmill sites on Class C lands within WSA 360 is expected. The level of disturbance of windmill sites within the Class C area will be lower than that anticipated for the two Class I windmill sites under Alternative 1. However, the sites in the Class C area are of higher quality and are more heavily used by deer.

Impacts on Couch's Spadefoot Toad Habitat

Overall, minor to moderate impacts to Couch's spadefoot toad habitat are anticipated. Impacts will be generally more severe than those of the proposed action, because of higher anticipated recreational use levels at the gravel pits east of Glamis and in habitat areas around Ogilby.

Impacts on Candidate Species for Federal Listing as "Threatened" or "Endangered"

Astragalus magdalenae var. peirsonii (Peirson's milkvetch): Impacts are expected to be similar to those of Alternative 1. While fewer facilities will be constructed along the Imperial Sand Dunes Road, roadside areas will be increasingly impacted from undeveloped camping and associated riding activities. OHV use of the Ogilby area and WSA 360 will be higher under this alternative than under Alternative 1. Despite the preparation of an HMP calling for monitoring, lack of funding will make implementation of a monitoring program less likely. This will make it difficult or impossible to determine actual trends or to implement timely protective actions if unanticipated impacts occur.

Helianthus niveus ssp. tephrodes (Silver-leafed dune sunflower): Impacts are expected to be similar to those of Alternative 1. However, increased OHV use of the high primary dunes within WSA 360 is anticipated under Alternative 2, and this will result in minor negative impacts within the WSA. Nevertheless, the species should maintain a viable population. Implementation of a monitoring program to confirm this will be unlikely, however.

Palafoxia arida var. gigantea (Giant Spanish needle): Impacts are expected to be similar to those of Alternative 1. However, research into critical environmental factors affecting populations of this annual species will probably not be conducted, and actual trends will remain unknown.

Desert Tortoise: Minor negative impacts are expected under Alternative 2. No major changes in OHV use levels are anticipated within the probable habitat of this species (Mammoth Wash area), but the area will continue to be regularly used by vehicles.

Andrew's Dune Scarab Beetle: As in the case of Alternative 1, minor to moderate negative impacts are expected. While facility development on Class I lands south of Glamis will not occur, use of the Ogilby campsite will increase more than under Alternative 1. The net effect will be a similar overall increase in OHV use within the secondary dunes, which are prime habitat for the beetle.

Baseline studies to further define distribution of the beetle will be less likely to be implemented, and the actual impacts of Alternative 2 might not be determined through monitoring.

Flat-tailed Horned Lizard: Use of Pilot Knob Mesa and East Mesa will be greater under Alternative 2 than Alternative 1. Since these areas are the locations of most known sightings, the potential for moderate or even major negative impacts is higher under Alternative 2. Use of the South Ogilby Dunes area is expected to be identical (very low) under both Alternative 1 and Alternative 2, with only very minor negative impacts anticipated.

Colorado Desert Fringe-Toed Lizard: Impacts are expected to be similar to those of Alternative 1, although implementation of studies to determine actual trends will be less likely.

Impacts on Other Plant Species Considered Sensitive

Ammobroma sonorae (Sand Food): Impacts are expected to be similar to those of Alternative 1, although studies to monitor actual trends will not be conducted on a regular basis.

Astragalus lentiginosis var. borreganus (Borrego milkvetch): Impacts are expected to be similar to those of Alternative 1, although studies to monitor actual trends would be less likely. Because use of the Ogilby area is expected to be greater under Alternative 2, the likelihood of moderate impacts to individual stands is greater than under Alternative 1.

Cryptantha costata (Ribbed cryptantha): Negligible to minor negative impacts are expected. Increased OHV use of WSA 360 is anticipated under Alternative 2. Since this species is known from a single location within the WSA, the potential for impact to the species is slightly greater under Alternative 2. Since monitoring studies will be unlikely, it will probably not be known if the plant actually has a wider distribution, or if impacts have occurred.

Lyrocarpa coulteri var. palmeri (Coulters lyrepod): Negligible to minor negative impacts to this species are expected, for the same reasons as ribbed cryptantha.

Croton wigginsii (Wiggins' croton): Impacts are expected to be very similar to those of Alternative 1.

Impact on Private Recreation Service Businesses in Imperial County

Overall, Alternative 2 will have a negligible to minor positive impact on recreation service businesses within Imperial County. Vendors will continue to operate adjacent to the private businesses at Glamis and Boardmanville, resulting in negative impacts ranging from minor to moderate depending on the weekend. No concession facilities will be developed, resulting in a minor positive overall impact to Glamis and Boardmanville businesses, which will then be the main beneficiaries of projected use increases.

Since use increases similar to that of Alternative 1 will occur, the impact to recreation service businesses within Imperial County will be identical to that of Alternative 1 through Level 3. The lack of concession stores in the dunes will have a minor positive impact to similar businesses in adjacent communities. However, most dunes users buy the bulk of their supplies at home before coming to Imperial County. Failure to develop concessions in the dunes would mean that fewer overall recreation dollars would be spent in Imperial County than under Alternative 1.

Impact on Public Health and Safety

Alternative 2 will have a major negative impact on public health and safety in the recreation area. The already serious trash problem will become worse. Extra trash stations and maintenance staff needed to handle the anticipated volume of litter and trash from a 115% rise in visitation will not be provided. While volunteer cleanups will be encouraged, they will not keep up with the growing volume of trash.

Although new restrooms will be constructed at Roadrunner Campground, no such facilities will be installed at Mammoth Wash, Glamis, Buttercup Valley, Grays Well, or Gordons Well. Likewise, dump station facilities will not be provided anywhere in the recreation area. In the late 1990s, sanitation problems will be further aggravated by the lack of developed RV campgrounds, which under the proposed action would provide trash, restroom, and dump station facilities needed to accomodate use at higher densities.

The result will be acute public sanitation and health problems associated with accumulated garbage and human waste. Increasingly, the sanitation problem will spread into Class L and M lands adjacent to the dune system.

Failure to restrict use of glass bottles will result in increased injuries from broken glass. Lack of established speed limits in high-use zones and poor visibility from lack of whip masts and flags will contribute to a higher rate of person/vehicle and vehicle/vehicle collisions.

Enforcement of registration, noise, and equipment requirements, as well as rules of vehicle operation, will deteriorate as use levels increase without an increase in BLM Ranger staff. Hiring of two EMT/Recreation technicians will free the Rangers to concentrate more on enforcement, but this will not fully compensate for failure to expand the Ranger force.

Two EMT/Recreation Technicians will reside at the Cahuilla Ranger Station and patrol the recreation area, and the Cahuilla Ranger Station will be open every winter weekend. This will improve emergency response in the Glamis/Gecko area, but response will remain inadequate in other areas. The volunteer dune patrol will conduct safety workshops and patrol the Glamis/Gecko area, but its activities will not be fully expanded to other parts of the recreation area. No overall public safety education campaign will be implemented, and no interagency safety plan will be prepared.

New OHV corridors to help guide and orient visitors and separate highway from off-highway use will not be implemented. The incidence of OHV/highway vehicle collisions will increase significantly, especially in the Buttercup, Grays Well, and Gordons Well areas.

ALTERNATIVE 3 - USE RESTRICTIONS AT SOUTH OGILBY DUNES AND OGILBY (PILOT KNOB MESA)

Impacts on OHV Recreation

This alternative will result in minor negative impacts at South Ogilby dunes. OHV use of South Ogilby is very low. An estimated 750 VUDs of OHV recreational use will be displaced from the area annually.

This alternative will result in moderate negative impacts to OHV recreation on Pilot Knob Mesa. While this area will remain available for riding, the Ogilby campsite and other campsites on Pilot Knob Mesa will be limited to day use only. This will include all east-side campsites situated south of railroad bridge #16, which is located 3.3 miles south of Glamis (at the Class I-Class L boundary).

Closure of Pilot Knob Mesa to camping will reduce the level of OHV use of that area from the current 26,000 VUD per year to about 8,000 VUD per year in 1988. Much of the camping use will be displaced onto private lands at Ogilby Townsite and onto BLM Class L and M lands along Ted Kipf Road, located just east of the Southern Pacific Railroad tracks (just outside of the recreation area boundary). Although these areas lack facilities and amenities, they are still reasonably close to the dunes and are close to Yuma, where many Ogilby users come from. The expected shifts in use will be most noticeable on major holiday weekends. While only about 30 camping units can be found on Pilot Knob Mesa on a typical nonholiday weekend, the number swells to several hundred on major holidays. On such major holidays, use currently accomodated at the Ogilby campsite will shift primarily to the Ogilby Townsite and Ted Kipf Road areas. Use currently accomodated on Class L lands south of railroad bridge #16 will primarily be displaced northward into the crowded Glamis area and northeastward onto Class M lands along Highway 78 and near Boardmanville. Some use will also be redistributed to East Mesa near Gordons Well and the Buttercup Valley Open Area. Table EA-4 provides an estimation of expected use trends.

The remaining 8,000 VUDs on Pilot Knob Mesa will be day riding use. Although camping use will end, riding use will probably increase. The zone of intensive riding around campsites will shift from the present sites to the new camp areas, resulting in increased activity along the eastern margin of Pilot Knob Mesa. In addition, new routes and trails will develop across the mesa between the new campsites and the dunes.

Use of the central dunes Class L lands, including WSA 362, will probably be reduced by about 10-15%. While recreationists will continue to reach this area from campsites on the eastern margin of Pilot Knob Mesa, the greater distance from the campsites to the dunes will reduce the number of short, spontaneous rides into the WSA.

The trespass problem on private lands at Ogilby Townsite will be resolved in the late 1990s with acquisition of the lands by BLM (Prescription 9-13). The acquired lands will be closed to camping.

Impacts on General (Non-OHV) Recreation

Impacts will be identical to those of the Proposed Action, with the exception that the annual ceremony located just south of the Ogilby interchange at South Ogilby dunes will be displaced

TABLE EA-4

ANTICIPATED OHV USE LEVELS AND USE DENSITIES
UNDER ALTERNATIVE 3
IMPERIAL SAND DUNES RECREATION AREA

Use Zone		1985		1995		2000	
	Projected Average Annual Increase	VUDs	(VUD/Acre/Yr.)	VUDs	(VUD/Acre/Yr.)	VUDs	(VUD/Acre/Yr.)
Mammoth Wash Open Area (11,000 acres)	0% (1985-1995) 34% (1995-2000)	19,000	1.7	19,000	1.7	150,000	13.6
Glamis/Gecko Open Area (22,000 acres)	4.0% (1985-1995) 2.8% (1995-2000)	489,000	22.2	735,000	33.4	835,000	37.9
WSA 362/ Central Dunes Class L (65,000 acres)	7%	6,000	0.1	12,000	0.2	18,000	0.3
Ogilby/Pilot Knob Mesa[1] (15,300 acres)	5% (following camping closure)	26,000	1.7	13,000	0.8	16,000	1.0
Buttercup Valley Open Area (12,500 acres)	5.9%	223,000	17.8	414,000	33.1	558,000	44.6
East of Glamis (Highway 78) (9,300 acres)	12% (1985-1995) 2% (1995-2000)	16,000	1.7	57,000	6.1	63,000	6.8
East Mesa near Dunes (29,000 acres)	8.5% (1985-1995) 0% (1995-2000)	19,000	0.6	46,000	1.5	46,000	1.5
Total Rec. Area (160,000 acres)	4.7% (1985-1995) 4.9% (1995-2000)	792,000	5.0	1,284,000	8.0	1,668,000	10.4
Ted Kipf Road Ogilby Townsite (5,000 acres outside rec. area)	31% (1985-1995) 8% (1985-2000)	500	0.1	14,000	2.8	21,000	4.2

[1]Use of Pilot Knob Mesa will drop to 8,000 VUD in 1988 as a result of closure of the area to camping.

NOTE: Rationale for expected trends in use are presented in the text under "Impacts on OHV Recreation." All figures except those for 1985 are estimates based on the professional judgment of El Centro Resource Area staff. This table is intended to help the reader visualize the general trends in use discussed in the text. It is not intended to be a precise use prediction.

from the area. This ceremony involves about 125 visitors who camp on two acres immediately adjacent to the interchange for a weekend. No OHVs are involved, although about 50-75 private trucks and autos are parked in the area during the event.

Dunes Vista Long-Term Visitor Area (LTVA) will be excepted from the general closure of Pilot Knob Mesa to camping. This 30-acre campsite located at the Ogilby Road Interchange and Interstate 8 will remain available for long-term camping on a permit basis. It is not anticipated that this site would become an OHV camping area because of the permit and fee requirement and because OHV use is restricted in LTVAs. Any use conflicts that might develop between long-term visitors and weekend OHV users would be resolved in favor of the long-term visitors.

Impacts on Wilderness Values

Naturalness: Impacts to WSA 360 will be identical to those of Alternative 1. Impacts to WSA 362 will be similar to those of Alternative 1. However, since OHV use of WSA 362 would be expected to be 10-15% less under Alternative 3, fewer impacts to naturalness would occur. Overall minor negative impacts to naturalness are expected.

Solitude: Impacts to WSA 360 will be identical to Alternative 1. Impacts to WSA 362 will be similar to the proposed action, although the anticipated 10-15% reduction in OHV use will slightly improve opportunities for solitude. Overall, minor negative impacts to solitude are expected in WSA 362.

Primitive or Unconfined Recreation: Impacts to both WSAs are expected to be identical to those of Alternative 1.

Impacts on Burro Mule Deer Habitat

Impacts would be identical to those of the proposed action, except along the eastern margin of Pilot Knob Mesa. Wash vegetation along the Southern Pacific Railroad and just east of the railroad along Ted Kipf Road provides deer cover. This cover is relatively more abundant east of the tracks, where drainage patterns have not been modified by the railroad. The anticipated shift of OHV use into this area will result in minor negative impacts to deer habitat.

Impacts on Couch's Spadefoot Toad Habitat

Some low pockets potentially suitable as spadefoot toad habitat exist in the South Ogilby area, though the species is not recorded from that area and OHV use of the pockets is low. Assuming the toad is present, some habitat sites could be protected by closure.

The toad is recorded from Ogilby Townsite. Although this area receives relatively little camping use at present, this will increase dramatically with closure of the Ogilby campsite three miles west. Closure of Pilot Knob Mesa to camping will also disperse use into the known spadefoot toad habitat at the gravel pits east of Glamis. Use of the lands east of Glamis is expected to approximate the levels estimated for the no action alternative.

Localized moderate negative impacts are expected at Ogilby Townsite and at the gravel pits east of Glamis. Overall, minor to moderate negative impacts to spadefoot toad habitat are expected from Alternative 3.

Impacts on Candidate Species for Federal Listing as "Threatened" or "Endangered"

Astragalus magdalenae var. peirsonii (Peirson's milkvetch): Impacts to Peirsons' milkvetch would be very similar to those of Alternative 1. This species is present in very low numbers in the South Ogilby area and is not known from Pilot Knob Mesa. Prime habitat is in other parts of the dunes system. Closure of South Ogilby would not significantly contribute to protection of the species. Elimination of camping on Pilot Knob Mesa would result in a 10-15% reduction in OHV use in the adjacent sand dunes, which would result in a slight reduction in disturbance of this species. However, the overall impact characterization for Alternative 3 is identical to Alternative 1.

Helianthus niveus ssp. tephrodes (Silver-leafed dune sunflower). Impacts to silver-leafed dune flower would be very similar to those of Alternative 1. The species is present in very low numbers at South Ogilby and is not known from Pilot Knob Mesa. Prime habitat is in other parts of the dune system. Closure of the South Ogilby area would not significantly contribute to the protection of the species. Elimination of camping on Pilot Knob Mesa would result in a 10-15% reduction in OHV use in the adjacent sand dunes, which would result in a slight reduction in disturbance of this species. However, the overall impact characterization for Alternative 3 is identical to Alternative 1.

Palafoxia arida var. gigantea (Giant Spanish Needle): This species is present in very low numbers within the South Ogilby area. Prime habitat is in other parts of the dune system. Closure of this area would not significantly contribute to protection of this species. Reduced OHV use in the WSA 362 and Class L dune areas as a result of the Pilot Knob Mesa camping closure would result in a slight reduction in disturbance of this species. However, the overall impact characterization for Alternative 3 is identical to Alternative 1.

Desert Tortoise: Impacts to desert tortoise would be identical to those of Alternative 1. Desert tortoise are not known to occur in the South Ogilby or Pilot Knob Mesa areas.

Andrew's Dune Scarab Beetle: Andrew's dune scarab beetle is likely to occur in the South Ogilby area. Although this area was not surveyed in 1979, an older record indicates the beetle is present. Closure of this area of low OHV use would have a minor positive impact to beetle habitat within the South Ogilby area. Closure of Pilot Knob Mesa to camping will move campsites away from the eastern margin of the WSA 362-Class L dunes area, and reduce OHV use of this area by 10-15%. This will reduce disturbance of beetle habitat along the eastern dune margin, although the area will continue to receive a low level of OHV use.

Overall, Alternative 3 is expected to have a minor to moderate negative impact to Andrew's dune scarab beetle habitat.

Flat-tailed Horned Lizard: As is the case with other areas along the creosote bush scrub/secondary dunes margin, the South Ogilby Dunes is considered good flat-tailed horned lizard habitat. Closure of the area would protect this habitat. However, the positive effects of closure would be relatively minor since current OHV use of the area is low and is not expected to increase significantly.

In the Pilot Knob Mesa area, the flat-tailed horned lizard is known primarily from sites between Ogilby Townsite and Interstate 8. This area can be expected to receive increasing levels of OHV use as a result of the shift in camping use from the Ogilby campsite to Ogilby Townsite. It is not known if the lizard is present near the campsites being closed, which are west of the sites of known lizard occurrence. Alternative 3 will probably not result in any overall reduction in habitat disturbance on Pilot Knob Mesa and may actually increase it.

Overall, Alternative 3 is expected to result in minor to moderate negative impacts to the flat-tailed horned lizard.

Colorado Desert Fringe-Toed Lizard: This species is present throughout the recreation area, including the South Ogilby and Pilot Knob Mesa areas. Closure of the South Ogilby area, which receives a very low level of OHV use, would have a very minor positive impact to the habitat of this species.

While closure of Pilot Knob Mesa to camping would reduce OHV riding activity in WSA 362 by 10-15%, it would most likely produce a similar increase in riding activity, trail proliferation, and habitat disturbance on Pilot Knob Mesa itself.

In spite of a minor improvement in habitat conditions at South Ogilby, Alternative 3 would result in impacts very similar to Alternative 1.

Impacts on Other Plant Species Considered Sensitive

Ammobroma sonorae (Sand Food): This species is present at moderate to high densities within the South Ogilby area. Other high density areas include the Buttercup Valley Open Area and central WSA 362. Closure of this area of low OHV use would have a very minor positive impact on this species within the South Ogilby area.

Sand food is also present at moderate to high densities in the dunes west of Pilot Knob Mesa. The expected 10-15% reduction in riding activity in these dunes would result in a slight reduction in disturbance of this species.

Overall, minor negative impacts to sand food are anticipated from implementation of Alternative 3.

Astragalus lentiginosis var. borreganus (Borrego milkvetch): This species occurs in moderate to high densities in small dune depressions in the South Ogilby area, as well as secondary dune areas to the north. Closure of the area would have a minor positive impact to the species by eliminating the infrequent incidence of OHV disturbance now occurring.

This species is also present in small dune depressions in the secondary dunes near Ogilby campsite. Closure of this and other campsites on Pilot Knob Mesa would reduce riding activity in the area of these sites of known occurrence, thereby reducing the incidence of localized moderate impacts in this area.

Recreation area-wide, minor negative impacts to Borrego milkvetch are expected, with moderate impacts in localized areas. The incidence of moderate impacts will be somewhat lower than that expected for Alternative 1.

Cryptantha costata (Ribbed cryptantha): This species is not known to occur in the South Ogilby, Pilot Knob Mesa, or WSA 362 areas. Impacts will be identical to those of Alternative 1.

Lyrocarpa coulteri var. palmeri (Coulters lyrepod): This species is not known to occur in the South Ogilby, Pilot Knob Mesa, or WSA 362 areas. Impacts will be identical to those of Alternative 1.

Croton wigginsii (Wiggins' croton): This species is present in very low numbers within the South Ogilby area, although an isolated stand occurs a short distance to the east of the recreation area boundary. Closure of South Ogilby would have a negligible impact to this species. The species is most common

in the primary dunes, and occurs with lower frequency on the secondary dunes adjacent to Pilot Knob Mesa. The 10-15% anticipated reduction in OHV use in WSA 362 would not significantly impact this species. Overall, impacts of Alternative 3 would be identical to those of Alternative 1.

Impact on Private Recreation Service Businesses in Imperial County

Impacts would be identical to those of Alternative 1.

Impacts on Public Health and Safety

Overall, Alternative 3 will have a major positive impact on public health and safety, similar to that of Alternative 1. Alternative 3 will result in concentrations of OHV-related camping activity on Class M lands east of Glamis, along Ted Kipf Road, and near Ogilby Townsite that will be higher than those expected for Alternative 1. The lack of sanitation facilities in these areas will contribute to a more serious litter and human waste problem in these areas than would be the case under Alternative 1. On the other hand, these problems will be diminished at closed campsites in Class L on Pilot Knob Mesa. Overall impacts of the two alternatives will therefore be very similar.

ALTERNATIVE 4 - REDESIGNATION OF SOUTH OGILBY DUNES AS "OPEN" FOR OHV USE

Impacts on OHV Recreation

Alternative 4 will result in a very minor positive impact to OHV recreation in the South Ogilby area. The current very low level of OHV use (about 750 VUD annually) is not expected to significantly increase as a result of redesignation. This is because the area has relatively low potential as an OHV recreation area. It contains only small dunes and is cut off from higher dunes to the west by the All American Canal. No facility development is planned. The positive impact would consist of the formal allocation of 4,300 acres as available for cross-country OHV travel. However, OHV opportunities on the South Ogilby lands would not be significantly enhanced.

Other impacts to OHV recreation would be identical to those of Alternative 1.

Impacts on General (Non-OHV) Recreation

Impacts will be identical to those of Alternative 1.

Impacts on Wilderness Values

Impacts will be identical to those of Alternative 1.

Impacts on Burro Mule Deer Habitat

Impacts will be identical to those of Alternative 1.

Impacts on Couch's Spadefood Toad Habitat

Impacts will be very similar to those of Alternative 1. Although the South Ogilby area contains low pockets of potentially suitable toad habitat, the species has not been recorded from the area. OHV use of the area is low, and is expected to remain that way regardless of the OHV designation, because of low potential as an OHV use area.

Impacts on Candidate Species for Federal Listing as "Threatened" or "Endangered"

Astragalus magdalenae var. peirsonii (Peirson's milkvetch): Overall, impacts to Peirson's milkvetch will be identical to those of Alternative 1. This species is present in very low numbers in the South Ogilby area. Prime habitat is in other parts of the dunes system.

Helianthus niveus ssp. tephrodes (Silver-leafed dune sunflower): Overall, impacts to silver-leafed dune sunflower will be identical to those of Alternative 1. The species is present in very low numbers at South Ogilby. Prime habitat is in other parts of the dune system.

Palafoxia arida var. gigantea (Giant Spanish needle): Overall, impacts to giant Spanish needle will be identical to those of Alternative 1. This species is present in very low numbers within the South Ogilby area. Prime habitat is in other parts of the dune system.

Desert Tortoise: Impacts to desert tortoise will be identical to those of Alternative 1. Desert tortoise are not known to occur in the South Ogilby area.

Andrew's Dune Scarab Beetle: Andrew's dune scarab beetle is likely to occur in the South Ogilby area. Overall impacts of this alternative will be virtually identical to those of Alternative 1. While impacts to the beetle at South Ogilby will most likely be only minor, designation of the area as "open" will complicate efforts to take protective action in the unlikely event that significant impacts are documented.

Flat-tailed Horned Lizard: As is the case with other areas along the creosote bush scrub/secondary dunes margin, the South Ogilby dunes is considered good flat-tailed horned lizard habitat. Only very minor negative impacts are expected at South Ogilby as a result of redesignation because of the low level of use. However, designation of the area as "open" will

complicate efforts to take protective action in the event that impacts are documented. Overall, Alternative 4 will result in impacts very similar to those of Alternative 1 (minor to moderate negative impacts recreation area-wide).

Colorado Desert Fringe-Toed Lizard: This species is likely to be present in the South Ogilby area. Because of the low level of use, only minor impacts are expected at South Ogilby. However, designation of the area as "open" will complicate efforts to take protective action in the unlikely event that significant impacts are documented. Recreation area-wide, impacts will be very similar to those of Alternative 1.

Impacts on Other Plants Species Considered Sensitive

Ammobroma sonorae (Sand Food): This species is present at moderate to high densities within the South Ogilby area. Redesignation of the area as open will have a minor negative impact, and could complicate efforts to take protective action in the event that significant impacts are documented. Recreation area-wide, impacts identical to Alternative 1 are expected.

Astragalus lentiginosis var. borreganus (Borrego milkvetch): This species occurs in moderate to high densities in small dune depressions in the South Ogilby area, as well as secondary dune areas to the north. Redesignation of the area as open will have a minor negative impact to this species, and could complicate efforts to take protective action in the event that significant impacts are documented. Recreation-area wide, impacts identical to Alternative 1 are expected.

Cryptantha costata (Ribbed cryptantha): This species is not known to occur in the South Ogilby area. Impacts will be identical to those of Alternative 1.

Lyrocarpa coulteri var. palmeri (Coulters lyrepod): This species is not known to occur in the South Ogilby area. Impacts will be identical to those of Alternative 1.

Croton wigginsii (Wiggins' croton): This species is present in very low numbers within the South Ogilby area, although an isolated stand occurs a short distance to the east of the recreation area boundary. Redesignation of the area as open will have a very minor negative impact on this species. Overall, impacts identical to those of Alternative 1 are expected.

Impact on Private Recreation Service Businesses in Imperial County

Impacts of Alternative 4 will be identical to those of Alternative 1.

Impact on Public Health and Safety

Impacts of Alternative 4 will be identical to those of Alternative 1.

APPENDICES

List of Appendices

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APPENDIX A
Sensitive Species, Baseline Data and Monitoring Studies

APPENDIX A - SENSITIVE SPECIES BASELINE DATA AND MONITORING STUDIES

BASELINE STUDIES[1,2]

Level	Study	Area	Cost	Must be Completed Prior to Implementation of These Prescriptions
1 (existing data)	threatened & endangered plants	throughout (1977)		
	scarab beetle	localized sites primarily east side, some on west side.		
	flat-tailed horned lizard	some--Pilot Knob Mesa, Dune Buggy Flats, WSA 362		
	burro deer	windmills		
2	scarab beetle--supplementary, focused inventory; use this to identify sites for establishment of up to 10 permanent plots for monitoring	secondary dunes in Class C, L & M	$7,000/yr. for one year[3]	6-13 6-17 6-28 6-31 6-32 6-33 8-7 8-8 8-9
	flat-tailed horned lizard (transects to supplement existing data; if results warrant, use information to establish permanent transects)	creosote bush habitat in Class L, M, & I	$4,000/yr. for one year[3]	6-13 6-17 6-28 6-31 6-32 6-33 8-7 8-8 8-9

Level	Study	Area	Cost	Must be Completed Prior to Implementation of These Prescriptions
	Colorado Desert fringe-toed lizard (general baseline inventory to be used to choose sites for permanent transects)	primary & secondary dunes in Class C, L, & M	$10,000/yr. for one year[3]	6-13 6-17 6-28 6-31 6-32 6-33 8-7 8-8 8-9
	burro deer (track counts, general observation, time lapse filming)	WSA 360	in house	1-13
3	desert tortoise (transects)	Mammoth Wash area	$2,000 for one year[3]	6-34 6-35 6-36 6-37 8-10
	burro deer (track counts)	Mammoth Wash	in house	6-34 6-35 6-36 6-37 8-10
	flat-tailed horned lizard (transects)	Mammoth Wash, WSA 360	$1,200/yr. for one year[3]	6-34 6-35 6-36 6-37 8-10
	Colorado Desert fringe-toed lizard (transects)	Mammoth Wash, WSA 360	$1,200/yr. for one year[3]	6-34 6-35 6-36 6-37 8-10

[1]Studies for other species of interest (such as Couch's spadefoot toad) will be included in the Imperial Sand Dunes Wildlife Habitat Management Plan, to be prepared in 1987.
[2]USFWS will advise BLM on study design and determination of thresholds of unacceptable decline.
[3]Minimum required. Additional years may be required depending on results of first year inventories.

MONITORING STUDIES[1,2]

Level	Study	Area	Cost	Must be Initiated Prior to Implementation of These Prescriptions
2	threatened and endangered plants (establish characterization and photo plots; small exclosures based on Westec inventory)	focused sites in primary and secondary dunes in Class C,L,M	$10,000 1st year, then $5,000/yr. every other year.	6-18 6-19 6-28 6-29 6-31 6-32 6-33 8-7 8-8 8-9
	scarab beetle	focused sites in Class C, L, & M (as warranted based on baseline work)	$4,000/yr. every other year	6-18 6-19 6-28 6-29 6-31 6-32 6-33 8-7 8-8 8-9
	flat-tailed horned lizard	focused sites in creosote bush scrub in Class L, M, & I (as warranted based on baseline work)	$4,000/yr. every other year.	6-18 6-19 6-28 6-29 6-31 6-32 6-33 8-7 8-8 8-9
	Colorado Desert fring-toed lizard	focused sites in primary and secondary dunes in Class C, L, M (as warranted based on baseline work)	$4,000/yr. every other year	6-18 6-19 6-28 6-29 6-31 6-32 6-33 8-7 8-8 8-9

Level	Study	Area	Cost	Must be Initiated Prior to Implementation of These Prescriptions
	burro deer	WSA 360		1-13
	veg. condition (set up characterization and photo plots; small exclosures; very low level strip photo transects)	Class C, L, & M	$6,000/yr. 1st year, $2,000/yr. every other year	6-18 6-19 6-28 6-29 6-31 6-32 6-33 8-7 8-8 8-9
3	desert tortoise	Mammoth Wash area (if warranted by baseline inventories)	$2,000/yr. every other year	6-34 6-35 6-36 6-37 8-10
	burro deer	Mammoth Wash	in house	6-34 6-35 6-36 6-37 8-10
	flat-tailed horned lizard	Mammoth Wash, WSA 360 (if warranted by baseline inventories)	$1,000/yr. every other year	6-34 6-35 6-36 6-37 8-10
	Colorado Desert fringe-toed lizard	Mammoth Wash, WSA 360	$1,000/yr. every other year	6-34 6-35 6-36 6-37 8-10
	threatened and endangered plants	Mammoth Wash, WSA 360	$1,000/yr. every other year	6-34 6-35 6-36 6-37 8-10
	veg. condition	Mammoth Wash, WSA 360	$1,000/yr. every other year	6-34 6-35 6-36 6-37 8-10
	Plus: maintain level 2 monitoring.			
4	Maintain level 2 and 3 monitoring.			
5	Maintain level 2 and 3 monitoring.			

[1]Studies for other species of interest (such as Couch's spadefoot toad) will be included in the Imperial Sand Dunes Wildlife Habitat Management Plan, to be prepared in 1987.
[2]FWS and DFG will advise BLM on study design and determination of thresholds of unacceptable decline.

APPENDIX B
Wilderness Study Area Nonimpairment Criteria

APPENDIX B - WILDERNESS STUDY AREA NONIMPAIRMENT CRITERIA

An activity will be considered nonimpairing if the BLM determines that it meets each of the following criteria:

(a) It is temporary. This means that the use or activity may continue until the time when it must be terminated in order to meet the reclamation requirement of paragraphs (b) and (c) below. A temporary use that creates no new surface disturbance may continue unless Congress designates the area as wilderness, so long as it can easily and immediately be terminated at that time, if necessary to management of the area as wilderness.

(b) Any temporary impacts caused by the activity must, at a minimum, be capable of being reclaimed to a condition of being substantially unnoticeable in the wilderness study area as a whole by the time the Secretary of the Interior is scheduled to send his recommendations on that area to the President, and the operator will be required to reclaim the impacts to that standard by that date. If the wilderness study is postponed, the reclamation deadline will be extended accordingly. If the wilderness study is accelerated, the reclamation deadline will not be changed. A full schedule of wilderness studies will be developed by the Department upon completion of the intensive wilderness inventory. In the meantime, in areas not yet scheduled for wilderness study, the reclamation will be scheduled for completion within 4 years after approval of the activity. (Obviously, if and when the Interim Management Policy ceases to apply to an inventory unit dropped from wilderness review following a final wilderness inventory decision of the BLM State Director, the reclamation deadline previously specified will cease to apply.) The Secretary's schedule for transmitting his recommendations to the President will not be changed as a result of any unexpected inability to complete the reclamation by the specified date, and such inability will not constrain the Secretary's recommendation with respect to the area's suitability or nonsuitability for preservation as wilderness.

The reclamation will, to the extent practicable, be done while the activity is in progress. Reclamation will include the contouring of the topography to a natural appearance (not necessarily to the original contour), the replacement of top soil, and the restoration of plant cover at least to the point where natural succession is occurring. Plant cover will be restored by means of reseeding or replanting, using species previously occurring in the area. If necessary, irrigation will be required. The reclamation will be complete, and the impacts will be substantially unnoticeable in the area as a whole, by the time the Secretary is scheduled to send his recommendations to the President.

(c) When the activity is terminated, and after any needed reclamation is complete, the area's wilderness values must not have been degraded so far, compared with the area's values for other purposes, as to significantly constrain the Secretary's recommendation with respect to the area's suitability or nonsuitability for preservation as wilderness. The wilderness values to be considered are those mentioned in section 2(c) of the Wilderness Act, including naturalness, outstanding opportunities for solitude or for primitive and unconfined recreation, and ecological, geological or other features of scientific, educational, scenic, or historical value.

*Source: Interim Management Policy (IMP) and Guidelines for Lands Under Wilderness Review, BLM, 1979 (Revised 1983).

APPENDIX C
OHV Corridor Analysis
Buttercup Valley Open Area

APPENDIX C - OHV CORRIDOR ANALYSIS
BUTTERCUP VALLEY OPEN AREA

The Problem: Interstate Highway 8 and the All-American Canal serve to split the Buttercup Valley Open Area into two separate subunits - Buttercup Valley/Grays Well on the south and Gordons Well/Dune Buggy Flats on the north (See Map C-1). Highway vehicles can legally drive from one side to the other using the Interstate 8 bridges across the canal. There is no legal access for OHVs between the two sides. The Imperial Irrigation District will not grant an easement for public use of its Drop 1 bridge over the All-American Canal because of liability problems. As a result of the lack of OHV access, dangerous and illegal OHV crossings of the freeway and OHV use of the freeway canal bridges frequently occur.

Criteria for Selection of a Corridor Alignment

Criteria used for evaluating potential alignments include:

1. Traffic flow patterns created by the corridor should be consistent with Desert Plan decisions regarding limiting access to Multiple-Use Class L. The corridor should therefore link Class I with Class I, and avoid Class L.

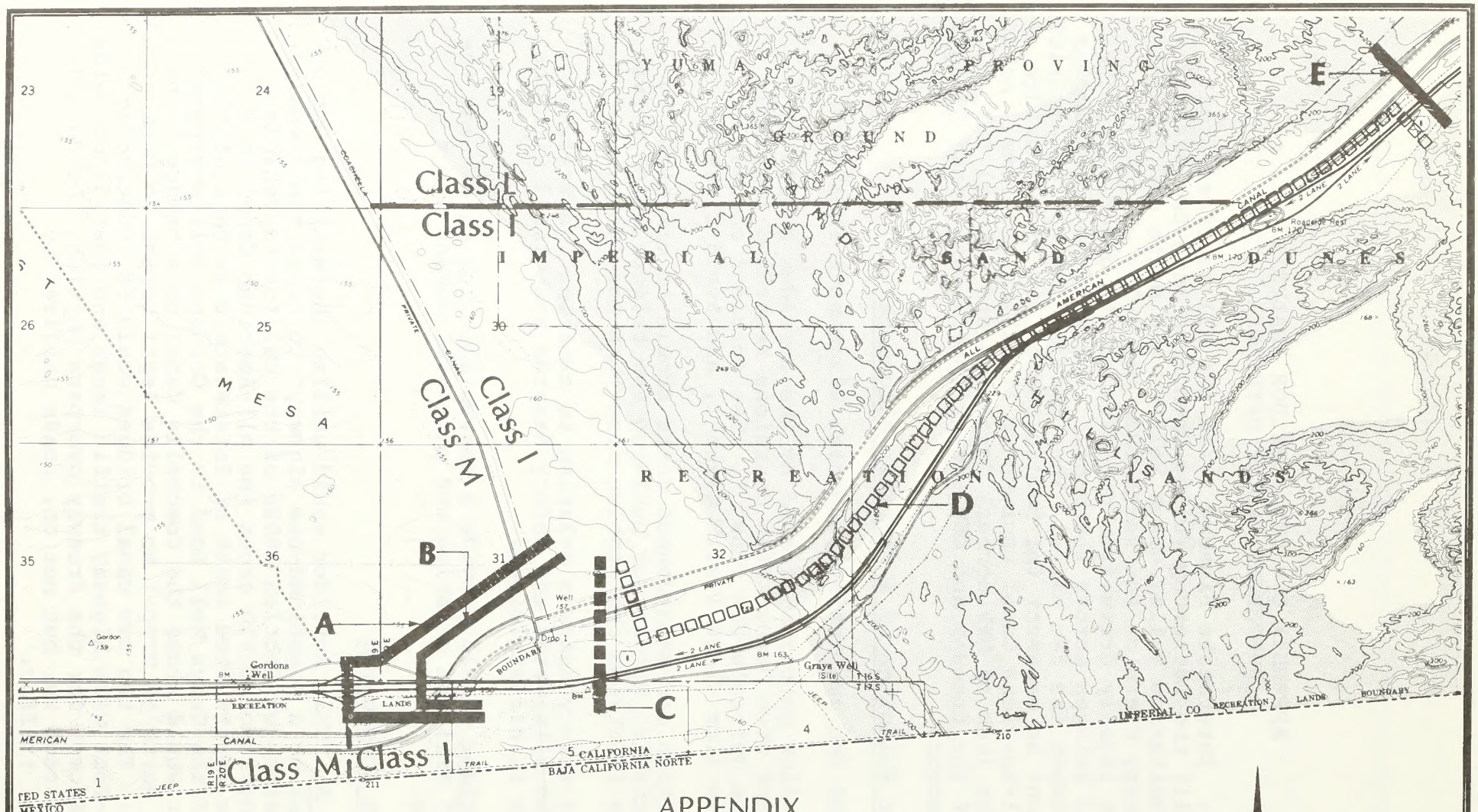
2. Construction and maintenance costs should be minimized by using existing bridges or building new bridges which serve multiple functions and resolve more than one issue.

3. Existing safety hazards relating to crossing the freeway should be eliminated and safety hazards associated with the corridor itself minimized.

4. The corridor should provide a convenient link at or near the point of greatest existing and potential demand for a crossing.

Alternatives Considered

Alternative A: This corridor would utilize the existing Gordons Well overpass as a "combined-use highway" to cross the freeway, under provisions of Section 38026 of the California Vehicle Code. The corridor would cross the All-American Canal on a bridge to be constructed south of Interstate 8 as part of the extension of the Grays Well Road to the Gordons Well overpass. The corridor would cross the Coachella Canal on a bridge to be constructed north of Drop 1 to provide legal access to Dune Buggy Flats. The two new canal bridges would be constructed with two 15-foot wide highway traffic lanes and one 15-foot wide OHV lane. Except for the freeway overpass portion, the corridor would be adjacent to, but not on, roads utilized by highway-legal traffic.



APPENDIX

MAP C-1

OHV CORRIDOR STUDY

BUTTERCUP VALLEY OPEN AREA

Alternative B: This corridor would cross the All-American and Coachella Canals on the same bridges identified for Alternative A. A separate OHV overpass would be constructed over Interstate 8 between the Gordons Well overpass and the All-American Canal.

Alternative C: This corridor would involve construction of an OHV freeway overpass and OHV bridge over the All-American Canal, approximately 1/4 mile east of the Drop 1 hydroelectric station.

Alternative D: This corridor would utilize the proposed Sand Hills Interchange overpass as a "combined-use highway" to cross the freeway, under provisions of Section 38026 of the California Vehicle Code. North of the freeway, the corridor would turn west, running between the freeway and the All-American Canal for 3.5 miles. At a point approximately 1/4 mile east of the Drop 1 hydroelectric station, it would cross the All-American Canal on a new OHV bridge as in Alternative C.

Alternative E: As with Alternative D, this corridor would utilize the proposed Sand Hills Interchange overpass to cross Interstate 8. An OHV bridge over the All-American Canal would be constructed immediately north of the Sand Hills Interchange.

Analysis of Alternatives

Alternative A:

Criteria 1 - Consistent with Desert Plan.

The corridor links Class I with Class I, and avoids Class L.

Criteria 2 - Costs

All-American Canal Bridge	$140,000*
Gordons Well Overpass Signing	10,000
Coachella Canal Bridge	70,000*
Misc. Corridor Signing (2.5 mi.)	3,000
TOTAL CONSTRUCTION	$223,000
Annual Maintenance (all bridges)	8,000*

*Costs for the two multi-function canal bridges are for the OHV lane portion of the bridges only.

Criteria 3 - Safety

This corridor would eliminate the safety hazards associated with illegal at-grade freeway crossings.

However, some hazards would be created at the point where the OHV corridor shares the Gordons Well overpass with highway traffic. These hazards, which include cross traffic from the interchange ramps and the possibility of OHVs utilizing the freeway ramps to access the freeway can be minimized, though not eliminated, with proper signing. Overall, safety would be much improved over the existing situation.

Criteria 4 - Convenient Link

The link would be convenient for users of both the Grays Well and Dune Buggy Flats areas, which together constitute about 70% of the total use of the Open Area. The crossing is also located near the focal point which will be created by concession development west of Grays Well.

The link would be least convenient for users of the Buttercup Valley area, who would have to ride about 4 miles out of their way to reach Dune Buggy Flats.

Alternative B:

Criteria 1 - Consistent with Desert Plan

The corridor links Class I with Class I, and avoids Class L.

Criteria 2 - Costs

All-American Canal Bridge	$ 140,000*
OHV Overpass (20 ft. width)	1,000,000
Coachella Canal Bridge	70,000*
Misc. Corridor Signing (1.7 mi.)	1,500
TOTAL CONSTRUCTION	$1,211,500
Annual Maintenance (Avg.)	$15,000

*Costs for the two multi-function canal bridges are for the OHV lane portion of the bridges only.

Criteria 3 - Safety

Since this corridor would utilize an overpass which is not used by highway traffic and would have no ramps communicating directly with the freeway, maximum safety would be achieved.

Criteria 4 - Convenient Link

See analysis for Alternative A.

Alternative C:

Criteria 1 - Consistent with Desert Plan

The corridor links Class I with Class I, and avoids Class L.

Criteria 2 - Costs

All-American Canal Bridge (20 ft. width)	$ 240,000
OHV Overpass (20 ft. width)	1,000,000
Misc. Corridor Signing (0.6 mi.)	1,000
Overpass Signing	10,000
TOTAL CONSTRUCTION	$1,251,000
Annual Maintenance (Avg.)	$15,000

Criteria 3 - Safety

See analysis for Alternative B

Criteria 4 - Convenient Link

This corridor would provide the most convenient access of any of the alternatives for users of the Grays Well and Dune Buggy Flats areas. It would be a moderate improvement over Alternatives A and B for Buttercup Valley users, but they would still be forced to ride about 2.5 miles out of their way to go between Buttercup and Dune Buggy Flats.

Alternative D:

Criteria 1 - Consistent with Desert Plan

This corridor links two Class I areas, and avoids Class L.

Criteria 2 - Costs

All-American Canal Bridge	$240,000
Sand Hills Overpass Signing	10,000
Misc. Corridor Signing (4.8 mi.)	4,000
TOTAL CONSTRUCTION	$254,000
Annual Maintenance	$8,000

Criteria 3 - Safety

The safety situation for Alternative D would be similar to that for Alternative A. Both alternatives would require joint use of the traffic lanes of the overpass by highway and off-highway vehicles. Overall, however, safety would be much improved over the present situation.

Criteria 4 - Convenient Link

Alternative D would provide a convenient link between Dune Buggy Flats and the Buttercup Valley area. It would be very inconvenient, however, for those camped at Dune Buggy Flats to go to Grays Well, and vice versa. The Grays Well area is proposed for concession development, and the west side of the dunes receives 70% of the total camping use in the open area. Implementation of Alternative D would ignore the likely future public demand for convenient access to concession facilities from all parts of the open area.

Alternative E:

Criteria 1 - Consistent with Desert Plan

Alternative E would link a heavily used Class I area with the central dunes Class L area. It would contribute to a significant increase in use of the southern part of the central dunes Class L lands. This is inconsistent with the Desert Plan decision to not encourage additional access into the central dunes.

Criteria 2 - Cost

All-American Canal Bridge	$240,000
Sand Hills Overpass Signing	10,000
Misc. Corridor Signing (0.2 mi.)	800
TOTAL CONSTRUCTION	$250,800
Annual Maintenance (Avg.)	$8,000

Criteria 3 - Safety

See analysis for Alternative D.

Criteria 4 - Convenient Link

This link would be most convenient for Buttercup Valley users seeking access to the central dunes Class L area. It would serve to draw Dune Buggy Flats users seeking to reach Buttercup Valley onto Class L lands. It also shares the shortcomings of Alternative D with regard to access between Dune Buggy Flats and Grays Well.

Recommendation and Rationale

Alternative A is recommended for implementation because it satisfies Criteria 1, 3, and 4 at the lowest cost. Potential safety hazards associated with OHV use of the Gordons Well overpass will be resolved with signing and patrols to enforce the safety, registration, and equipment requirements of Section 38026.5 of the California Vehicle Code.

In the event that designation of the Grays Well overpass is rejected as a joint-use highway by one or more of the governmental bodies or agencies which must approve the designation, Alternative B is the Bureau's second choice for implementation. Alternative B requires construction of one less bridge overall than Alternative C (assuming that the Coachella Canal bridge for legal access to Dune Buggy Flats and the Grays Well Road bridge over the All-American Canal are constructed regardless of which strictly-OHV bridges are built). It thus presents less of a continuing maintenance commitment than Alternative C, as well as a lower initial construction cost, when overall costs are considered.

Alternative D is not recommended for implementation because it does not adequately accomodate the anticipated demand for convenient access between Dune Buggy Flats and Grays Well. Alternative E is not recommended for implementation because it is inconsistent with the Desert Plan decision to limit access to Class L.

APPENDIX D
Glossary

APPENDIX D - GLOSSARY

ACCESS EASEMENT: Legal permission granted by the owner of a property to another entity, to enter or cross the property for specified purposes.

ACEC: Area of Critical Environmental Concern. An area identified as requiring special management attention to protect important biological, geological, or cultural resources.

APIARY SITE: A place where commercial honey-producing bees are kept.

ATV: All-Terrain Vehicle. A three- or four-wheeled vehicle equipped with low pressure tires, and with a seat straddled by the rider.

BLM: Bureau of Land Management

CHP: California Highway Patrol

CLASS C (Controlled): The most restrictive of the four Desert Plan multiple-use classes, assigned only to wilderness study areas that have been preliminarily recommended as suitable for wilderness designation by Congress.

CLASS L (Limited): Provides for low intensity, carefully controlled use. Usually assigned to areas of particularly sensitive or important natural or cultural resources. Facilities that provide for resource protection may be constructed in this class.

CLASS I (Intensive): Areas where concentrated use of land and resources is intended. Includes areas set aside for intensive off-highway vehicle recreation. This class is suitable for development of facilities for intensive recreation use.

CLASS M (Moderate): Intended to provide a balance between resource protection and use. Recreation facility developments may be constructed in this class.

CLOSED AREA: An area where motorized vehicles are not allowed. Non-motorized uses such as hiking and horseback riding are usually allowed and encouraged in Closed Areas, except in present and former military bombing ranges, which are closed to all forms of human entry. The perimeter of all Closed Areas is posted with signs to inform the public of the types of uses allowed.

CNPS: California Native Plant Society

DAY-USE FACILITY: A recreational development where overnight parking or camping is not allowed.

DESERT PLAN: The California Desert Conservation Area Plan, completed in 1980. This Congressionally-mandated document provides long-range, general guidance for management of all BLM-administered public lands in the California Desert, including the Imperial Sand Dunes.

DFG: California Department of Fish and Game.

DISPERSED AREA: An area lacking a campground or similar recreation facility which would serve to cluster visitors in one location. In a dispersed area, visitors are scattered at various informal, undeveloped campsites.

EA: Environmental Assessment. A document prepared to predict and evaluate an action's effect on the natural environment and human communities.

EMT: Emergency Medical Technician. A person trained and State-certified to provide emergency care at the scene of an accident or illness.

ENCROACHMENT PERMIT: Legal permission granted by the holder of a right-of-way to another entity, to enter or cross the right-of-way with a road or structure.

ENDANGERED SPECIES: An animal or plant species which is in danger of extinction throughout all or a significant portion of its range (as defined in The Endangered Species Act Amendments of 1982). This is the definition used by the U.S. Fish and Wildlife Service. The State of California and the California Native Plant Society define the term slightly differently.

FLPMA: Federal Land Policy and Management Act of 1976. The Congressional Act that directed BLM to manage the public lands according to the principles of multiple-use and sustained yield. Section 601 of the act established the California Desert Conservation Area and called for development of the Desert Plan. Section 603 called for BLM to review roadless areas for potential inclusion in the National Wilderness Preservation System, and mandated interim management protection of wilderness study areas.

FWS: U.S. Fish and Wildlife Service.

GREEN STICKER: Evidence of registration with the State of California Department of Motor Vehicles, required to be displayed on all OHVs.

HMP: Habitat Management Plan. A plan developed specifically for a certain wildlife habitat area that requires an intensive management effort.

IMP: Interim Management Policy and Guidelines for Lands Under Wilderness Review. A BLM document that prescribes guidelines for the management of Wilderness Study Areas until Congress decides whether or not to designate these areas as wilderness.

INTERMITTENT: An employee who works less than 40 hours per week.

KGRA: Known Geothermal Resource Area. An area in which the geology, nearby discoveries, competitive interest, or other evidence would, in the opinion of the Secretary of the Interior, cause those with experience in the field to believe that the prospects for extraction of geothermal steam or associated geothermal resources are good enough to warrant expenditures of money for that purpose. Major portions of the Glamis and Dunes KGRAs overlap the Imperial Sand Dunes Recreation Area.

LIMITED AREA: A place where motor vehicles are restricted to a system of approved routes. Other restrictions may apply, and may vary from one Limited Area to another.

LONG TERM VISITOR AREA: A place on public lands where, after paying a fee and obtaining a permit, visitors may camp for up to 8 months between October 1 and May 31.

MULTIPLE-USE CLASSES: A classification system developed as part of the Desert Plan, with guidelines describing the types of land uses and resource management techniques appropriate to each class. Most lands in the California Desert Conservation Area have been assigned to one of the four multiple-use classes: Class C, L, M, or I. Small acreages, notably those proposed for sales or withdrawal to other agencies, remain unclassified.

OHV: Off-highway Vehicle. A general term referring to all types of vehicles capable of operation off maintained roads, including motorcycles, ATV's, dune buggies, and four-wheel drive vehicles.

OHV DESIGNATION: The designation of public land for off-highway vehicle use. Lands in the California Desert Conservation Area have been designated as "Open," "Closed," or "Limited" for OHV use.

OPEN AREA: A place where motor vehicles may travel anywhere; i.e., cross-country travel is allowed.

PCAO: President's Commission on Americans Outdoors. A group created by President Reagan to research what Americans will want to do outdoors over the next generation, and to recommend how the public and private sectors can ensure there will be appropriate opportunities to meet that need. The Commission is scheduled to make its final report and recommendations to the President by December 31, 1986.

PLANK ROAD: A one-lane wooden road which was the first automobile thorofare to cross the Imperial Sand Dunes between 1914 and 1926. Remnants of the Plank Road are now designated as an Area of Critical Environmental Concern (ACEC).

RAMP: Recreation Area Management Plan. A plan prepared for recreation areas requiring special management.

RV: Recreational Vehicle. This term is normally used to describe large, self-contained camping vehicles such as motorhomes and travel trailers.

SEASONAL: An employee who works for only part of the year, but who works full-time (40 hours per week) during the period of employment.

STATE OHV FUND: A fund generated by the State of California through collection of off-highway vehicle "green sticker" registration fees, one percent of State gasoline taxes, and fines from violations at State Vehicular Recreation Areas. Grants from the fund are made available to Federal, State, and local governmental entities to acquire, develop, operate, and maintain OHV recreation areas. Sometimes called the "green sticker fund."

THREATENED SPECIES: An animal or plant species which is likely to become an endangered species within the foreseeable future throughout all or a significant portion of its range (as defined in the Endangered Species Act Amendments of 1982). This is the definition used by the U.S. Fish and Wildlife Service. The State of California and the California Native Plant Society define the term slightly differently.

VUD: Visitor Use Day. One VUD is equal to 12 hours spent by one person in the pursuit of recreation.

WHOOP-DE-DOS: A series of closely spaced undulations in the surface of an off-highway vehicle trail, created by the tires of the vehicles. Whoop-de-dos make the trail difficult to use for some types of vehicles, particularly large RVs.

WSA: Wilderness Study Area. A roadless area of public lands which BLM has determined possesses the wilderness qualities described in the Wilderness Act of 1964. WSAs were established in order to study the suitability of the areas for possible designation as wilderness by Congress. Through the IMP, BLM protects each WSA's wilderness qualities until Congress decides whether or not the WSA will be designated as wilderness.

APPENDIX E
Participants in the Planning Effort

APPENDIX E - PLANNING PARTICIPANTS

Bureau of Land Management, California Desert District

Line Participation

Gerald E. Hillier - District Manager
Richard E. Crowe - Assistant District Manager, Division of Operations
Wesley T. Chambers - Assistant District Manager, Division of Lands & Renewable Resources

Staff Participation

David B. Mensing - Outdoor Recreation Planner
David Frimerman - Civil Engineer
Clara J. Stapp - Illustrator
Candy Johnson - Chief, Public Affairs
G. Faye Bostic - Support Services Supervisor

Bureau of Land Management, El Centro Resource Area

Line Participation

G. Ben Koski - Area Manager
Roger D. Zortman - Area Manager
Peter G. D. Ertman - Chief, Branch of Resource Program Operations
Veronica Driscoll - Administrative and Maintenance Supervisor
William E. Vernon - Chief Area Ranger

Staff Participation

Steven M. Nelson - Lead Outdoor Recreation Planner
Lynn C. Anderson - Outdoor Recreation Planner
Lillian A. Olech - Wildlife Biologist
Patrick H. Welch - Archeologist
Sean E. Hagerty - Geologist
Robert M. Zimmer - BLM Ranger
Lynda G. Kastoll - Realty Specialist
Cristina Singh - Information Receptionist
Robert L. Ward - Maintenance Worker
Susan Richardson - Clerical Assistant

Other Federal and State Agencies Consulted

Kim Nicol - California Department of Fish and Game
Rocky Thompson - California Department of Fish and Game
Ray Bransfield - United States Fish and Wildlife Service
Brian Klock - California Department of Parks and Recreation
Lowell Landowski - California Department of Parks and Recreation

APPENDIX F

Consultation and Coordination

APPENDIX F

Consultation and Coordination

APPENDIX F - CONSULTATION AND COORDINATION

Approximately 500 copies of the draft Imperial Sand Dunes RAMP and EA were distributed for public review. Most were sent to individual members of the public who were on the El Centro Resource Area's recreation mailing list. In addition the following elected officials and government agencies received copies:

ELECTED OFFICIALS

Federal

Senator Alan Cranston
Senator Pete Wilson
Congressman Jim Bates
Congressman Duncan Hunter
Congressman Bill Lowery

State of Califoria

Senator Marian Bergeson
Senator William Craven
Senator Wadie Deddeh
Senator Jim Ellis
Assemblyman William Bradley
Assemblyman Peter Chacon
Assemblywoman Lucy Killea
Assemblywoman Sunny Mojonnier
Assemblyman Steve Peace
Assemblyman Larry Stirling

Local

Imperial County Board of Supervisors

AGENCIES

Federal

Department of Defense
  U.S. Navy
Department of the Interior
  Bureau of Land Management
    California Desert District Advisory Council
  Bureau of Reclamation
  U.S. Fish and Wildlife Service
Department of Justice
  Border Patrol
  Drug Enforcement Administration

State of California

California Highway Patrol
Resources Agency
Department of Fish and Game
Department of Parks and Recreation
Off-Highway Motor Vehicle Recreation Commission
Department of Transportation (CalTrans)

Imperial County

Parks and Recreation Department
Planning Commission
Public Works Department
Sheriff-Coroner

ORGANIZATIONS

American Honda
American Motorcycle Association
Arizona Desert Racing Association
Audubon Society
California All-Terrain Vehicle Association
California Association of Four-Wheel Drive Clubs
California Native Plant Society
California Off-Road Vehicle Association
Coachella Valley Water District
Desert Wildlife Unlimited
Earth First
Gold Cross Ambulance
Imperial Irrigation District
Imperial Valley Sidewinders Four-Wheel Drive Club
Imperial Volunteer Dunes Patrol
Los Exploradores Search and Rescue
Nature Conservancy
Parker Four Wheelers
San Diego Four Wheelers
San Diego Off-Road Coalition
Sierra Club
Specialty Vehicle Institute of America
Tierra del Sol Four Wheel Drive Club
Wilderness Society
Yuma Rural Metro Ambulance

COMMENT LETTERS AND RESPONSES

All letters received in response to the Draft Imperial Sand Dunes RAMP and EA are printed in this section. Responses have been made to all pertinent comments that questioned data or impact analysis, presented new information, or raised questions directly bearing upon the proposed action or alternatives. Changes or additions to the draft RAMP and EA have been incorporated into the revisions and corrections of the final RAMP and EA, as noted in the BLM responses. Comments that receive a BLM response are identified by a number corresponding with the response. Comment letters are arranged by agencies (Federal, State, and local), organizations, and individuals. Within each category, the letters are arranged in the order received.

INDEX OF WRITTEN COMMENTS AND RESPONSES

Federal Agencies

1. Bureau of Reclamation, Yuma Projects Office, U.S. Department of the Interior
2. Department of the Navy, Naval Air Facility, El Centro, California
3. Fish and Wildlife Service, Laguna Niguel Field Office, United States Department of the Interior

State Agencies

4. Department of Fish and Game, Resources Agency of California
5. Department of Parks and Recreation, Resources Agency of California

Local Agencies

6. Department of Public Works, County of Imperial

Organizations

7. California Off-Road Vehicle Association
8. California Native Plant Society
9. Mountain Defense League
10. The Desert Protective Council, Inc.
11. Sierra Club, Southern California Regional Conservation Committee
12. Arizona Outdoor Coalition
13. Friends of the Trail
14. San Diego Off-Road Coalition

Individuals

15. John Miller
16. Jay von Werlhof
17. Robert M. Norris
18. Walter A. Ziemer
19. Andrew Jones
20. Larry Parker
21. Lyann A. Comrack
22. Elliott Bernshaw
23. Ron Messick, Norma Messick, Rick Messick, Ramon Maramba, Kathy Maramba
24. Kevin O'Brien
25. Patrick Sibley
26. Jim Livermore
27. George Ruppi
28. Keevin Fisher

United States Department of the Interior

1

BUREAU OF RECLAMATION
YUMA PROJECTS OFFICE
BIN 12487
YUMA, ARIZONA 85365

IN REPLY
REFER TO: 303-150

NOV 7 1986

Memorandum

To: Mr. Roger Zortman, Area Manager, Bureau of Land Management, El Centro Resource Area, 333 South Waterman Avenue, El Centro, California 92243

From: Project Manager

Subject: Draft Recreation Area Management Plan and Environmental Assessment (EA) for the Imperial Sand Dunes

We have reviewed your subject draft and EA. We find that it appears to adequately address Bureau of Reclamation concerns.

Thank you for the opportunity to review and comment on this document.

DEPARTMENT OF THE NAVY
NAVAL AIR FACILITY
EL CENTRO, CALIFORNIA 92243

(2)

IN REPLY REFER TO:
11011
Ser 30/ 2230
DEC 17 1986

Bureau of Land Management
El Centro Resource Area
Attn: Roger Zortman
333 South Waterman Avenue
El Centro, CA 92243

Subj: DRAFT IMPERIAL SAND DUNES RECREATION AREA MANAGEMENT PLAN (RAMP)

Gentlemen:

The subject plan, dated October 1986, has been reviewed. The identification of the East Mesa lands around Bombing Target 68 as MUC L and "CLOSED" to off-road-vehicles is consistent with the pending 1985 Desert Plan Amendment.

Strict BLM enforcement of these redesignations will be required to promote public safety and provide for the Navy's operational needs.

Please continue to maintain the Naval Air Facility on your mailing list so that we may review future Management Plans for this area. The NAF point of contact is the Public Works Officer, Lieutenant Commander Mike Schiffner at (619) 339-2201.

E. G. GRAM
Captain, U.S. Navy
Commanding Officer

Naval air power - defense of freedom

United States Department of the Interior

FISH AND WILDLIFE SERVICE
LAGUNA NIGUEL FIELD OFFICE
24000 Avila Road
Laguna Niguel, California 92656

3

December 17, 1986

Memorandum

To: Area Manager, Bureau of Land Management, El Centro Resource Area

From: Project Leader

Subject: Draft Imperial Sand Dunes Recreation Area Management Plan and Environmental Assessment (1-6-87-TA-57)

The Fish and Wildlife Service (Service) has reviewed the draft Imperial Sand Dunes Recreation Area Management Plan (Plan) and Environmental Assessment (Assessment). The Plan is intended to provide specific direction for meeting the recreational needs of users of the Imperial Sand Dunes (Dunes) while preserving the high wildlife values of the system. The Plan details five levels of recreational development, all dependent upon available funding, which are designed to meet increasing demand for recreation in the dunes through the year 2000. Resource monitoring, intended to be closely tied to the recreational developments, is designed to assess the increased impacts of recreation on the Dunes. Our concerns with the Plan and Assessment are divided into general and specific comments.

General comments

The Plan and Assessment are ambitious attempts to resolve the problems of multiple use management of the Dunes. There is a possibility that they are too ambitious. Programs are based on the assumption that visitation will increase at a rate of five percent per year between 1986 and 2000 (page 16, last paragraph), leading to an anticipated maximum of 1,670,000 visitor use days per year by the year 2000. Is this increase based on use of existing facilities or is it taking into account increased use of the new recreational developments? 3.1 Are there are provisions to increase monitoring and recreational development if the five percent per year figure is too low? 3.2 Does the Bureau of Land Management (Bureau) have any program for limiting the density of use at some point, rather than continuing to disperse off-highway vehicles farther away from high concentration areas? 3.3 The Service believes these are general questions which the Bureau will need to answer in the near future.

A second general comment concerns the monitoring programs. All monitoring programs outlined in the Plan and Assessment should be in place prior to development of any recreational facilities at every funding level. 3.4 How will monitoring programs and facility development be balanced if full funding at a given level is not achieved? Secondly, the Bureau should not confuse the monitoring 3.5

program for mitigation of actual impacts. If declines in resource values are detected, funding should be made available under the funding level existing at that time to begin correcting the problem. Additional recreational development should not occur until declines in the resource values are compensated or reversed.

3.5

Specific comments

Page 38, Management Prescription 1-8. The Service advocates the closure of the South Ogilby Dunes area for off-highway vehicle use. The arguments presented by the Bureau for redesignating this area as open are based on meeting standards for sand dune management found in the Desert Plan and on the assumption that changing the classification would not greatly increase use of the area. With a 115 percent increase in use of the dunes projected by 2000, how can the Bureau be certain this area will remain lightly used? The resource values of the South Ogilby Dunes are substantial: flat-tailed horned lizards, Colorado Desert fringe-toed lizards, candidate and sensitive plants, and at least two major washes of importance to wildlife. We believe that protection of this area now through a Desert Plan amendment would be more productive and cause less controversy than attempting to redesignate it once use becomes established.

3.6

Page 70, Management Prescription 6-34 to 38. As described in your document, the Mammoth Wash area contains important wildlife values, including desert tortoises, burro deer, and migratory birds. Because of these values, the Service is opposed to the development of improved access to this area and of the 50,000 square foot camper parking lot on the north side of the wash. We do not believe that development on this scale is compatible with maintaining the high wildlife values of the area. We are also concerned that intensive use of Mammoth Wash could increase off-highway vehicle use of the North Algodones Dunes Wilderness Study Area. While the Service is not mandated to protect such areas on the basis of their wilderness characters, we do perceive these areas as maintaining higher wildlife values than surrounding land which is subjected to motorized recreational use.

3.7

Page EA 40, first paragraph, third sentence. We believe impacts to Couch's spadefoot toads will occur even when the toads are not on the ground's surface. Compaction of soil by off-highway vehicles may crush toads while in their burrows and make it impossible for other toads to reach the ground's surface once rains begin. Vehicle use of low-lying areas where the toads breed could adversely affect the species indirectly through disturbance of the dried ponds' surfaces and directly through crushing of tadpoles and lowering of water quality when water is present. We recommend that the Bureau change the assessment of the projected impacts on the Couch's spadefoot toad to at least "moderate" for the total population of the species and to "major" for localized areas and develop specific mitigation plans to offset or avoid these impacts.

3.8

3.9

F-8

3.10 Page EA 41, fifth paragraph, last sentence. The Assessment seems to downplay the scale of impacts to the desert tortoise. "Inadvertent destruction of some tortoise burrows" could often lead to the death of the burrows' occupants either directly through crushing and entrapment or indirectly through increased susceptibility to predation and environmental extremes if the burrow is crushed while the tortoise is absent. We also do not share the Bureau's seemingly innocent opinion that tortoises run over by off-highway vehicles are done so "accidently." Ample evidence exists that desert tortoises are often intentional targets of either vehicles or target practice. We believe the

3.11 potential impacts to the desert tortoise warrants leaving Mammoth Wash as a low intensity use area.

3.12 Page EA 45, Number 2 - Impacts on Burro Mule Deer Habitat. What evidence does the Bureau have that exclusion of off-highway vehicles from 60 acres around each windmill will be sufficient to prevent disturbance to burro deer? The deer will still have to traverse areas disturbed by recreational activity to reach the 60 acre exclosure. Also, how will these exclosures work? We believe that any exclosure which would allow deer to enter could probably also be solved by off-highway vehicle users. The Bureau should present evidence that these measures will in fact provide the intended protection.

3.13 Page EA 46, Management Prescription 5. Sand dune habitat is an extremely fluid environment, with the conformation of dunes and depressions constantly shifting. For this reason, the Service questions the value of fencing dune depressions or any other small areas to protect isolated resources as the locations of these areas can constantly be shifting. Also, the protected resource, in this instance, the Borrego milkvetch, may need more area than that fenced in to ensure its successful propagation. While the exclosure might protect the present population, disturbance outside the exclosure could make that habitat unsuitable. If the habitat within the exclosure becomes unsuitable, due to shifting sands, for example, then all habitat for that species would be lost in the vicinity. A more appropriate management action would be to enforce area-wide closures to ensure a predetermined percentage of the population is protected at all times.

3.14 Appendix A, Baseline Studies. The California Department of Fish and Game should be made part of the group which develops study designs and determines threshholds of unacceptable decline.

We appreciate having been included in the developmental stages of this document and look forward to continued cooperation with the Bureau in the formulation of this Plan. If you have any questions, please call Ray Bransfield at FTS 796-4270.

Marston J. Kenney
for Nancy Kaufman

F-9

cc: CDFG, Reg. 5, Long Beach, CA
CDFG, Niland, CA (Attn: R. Thompson)
CDFG, North Shore, CA (Attn: K. Nicol)
CDFG, Chino, CA (Attn: G. Black)

F-10

Response to U.S. Fish and Wildlife Service

Response 3.1

See response to comment 4.6.

Response 3.2

The RAMP can be amended in the future to incorporate changes to both the monitoring and development programs as may be necessitated by actual visitor use trends during the 1990s.

Response 3.3

The management program as prescribed in the California Desert Plan and Imperial Dunes RAMP provides for intensive use within Multiple-Use Class I areas while limiting use to low to moderate levels in Multiple-Use Class L, and very low levels of nonmotorized use in areas closed to vehicles. The program prescribed by the RAMP is intended to provide for improved distribution of off-highway vehicle use within Class I areas designated for intensive OHV use, not to indiscriminately disperse use away from current zones of high use concentration.

The RAMP envisions an overall average OHV visitor use density of 10.6 VUD/acre/year in the recreation area by the year 2000. This is an average for all lands available for vehicle use - use density in most Class I areas will be approximately 40 VUD/acre/year, while the density of WSA 362 is expected to average 0.3 VUD/acre/year.

These figures are relatively low when compared to some other dune recreation areas. For example, 1985 OHV use density at Pismo Dunes State Vehicular Recreation Area (SVRA) was over 330 VUD/acre/year.* Pismo Dunes received an estimated 232,000 OHV camping visits in 1985 compared to an estimated 226,000 visits to the Imperial Dunes. While the levels of OHV use are roughly equal, the use area at Pismo is 1,500 acres while that at the Imperial Dunes is 160,000 acres (including both open and limited use lands).

This is not to say that the user density level at Pismo would be manageable or desirable on the vast acreage of the Imperial Dunes. However, BLM is confident that the level and density of use predicted for 2000 A.D. can be accommodated in the Imperial Dunes, with proper management to protect resources and meet public safety and sanitation concerns as specified in the RAMP. There are no plans to limit use of the Class I portions of the

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* The VUD figure was derived from raw recreation visit data supplied by Pismo Dunes SVRA, and computed using the same procedures used for the Imperial Dunes.

recreation area. Use of Class L lands is and will continue to be limited by the lack of facilities and access. Should resource monitoring study data so indicate, additional measures (such as active limits on Class L use) will be taken to protect affected resources.

Response 3.4

The monitoring study program as outlined in the RAMP is phased so that pertinent baseline studies will be complete and the monitoring program in place prior to implementation of new development projects proposed by the RAMP. Appendix A specifies the relationship between baseline studies, monitoring, and development. If funding for monitoring studies is not available at a given level, development projects identified in Appendix A as being dependent on continuing monitoring studies at that level or higher levels will not be implemented.

Response 3.5

BLM is well aware of the difference between monitoring and mitigation of actual impacts. The RAMP makes no attempt to develop specific mitigation measures in many cases because the extent and nature of specific impacts, if any, are not fully understood. The baseline study program is intended to provide data which will improve our ability to assess positive as well as negative impacts to the plant and wildlife species involved prior to implementation of development projects. Specific mitigation measures will be developed in the site-specific EA prepared for each development project. The final decision to proceed will be made only after this site-specific EA has been completed, utilizing data from resource studies.

Additional mitigation measures will be developed with the assistance of the U.S. Fish and Wildlife Service (FWS) and Department of Fish and Game (DFG) and implemented when monitoring study data indicates specific declines in resource values beyond acceptable impact thresholds as defined through the baseline study program. Specific funding for mitigation measures is not fully defined in the RAMP because the nature and extent of mitigation measures cannot be completely defined at this time. Additional funding for unanticipated mitigation and habitat management projects will be sought as needed, regardless of funding level.

Response 3.6

The Draft RAMP did not propose any developments or other actions which would encourage increased use of the South Ogilby area. Use of the area has remained stable at a very low level since 1978, despite a 5.4% annual increase recreation area-wide. There is nothing to indicate that this area will become any more or less popular for recreational use in the future.

We concur with your analysis indicating a presence of sensitive resources. The proposal to change the OHV designation of South Ogilby Dunes has been deleted from the Final RAMP. This area will retain the current Limited Use designation. Resource conditions will be carefully monitored through the baseline and monitoring study program beginning at Level 2.

Response 3.7

The proposal to develop Mammoth Wash remains part of the final RAMP. However, the decision to proceed with development of the area will not be made until after the results of baseline resource studies are available and actual use trends recreation area-wide are known in the mid 1990s. As stated in the rationale for prescription 6-34, it is BLM's intent to delay development of this area until it is determined that a compelling need does in fact exist. In addition, Appendix A stipulates that baseline resource studies must be completed and the results considered during the final decision-making process.

Response 3.8

To the Bureau's knowledge, there is no data substantiating adverse impacts to Couch's spadefoot toads from soil compaction by vehicles. In the recreation area, the toads are found in natural low-lying areas and gravel pits which flood following rains. The floors of these depressions are subject to natural compaction from the presence of standing water, and are relatively firm during dry weather. Biologists have reported hearing toads calling from these areas following rains as late as 1983, despite the presence of both recreational vehicle use and heavy equipment operation in gravel pits.

Response 3.9

In view of this species' large range, which extends east to Texas and south into central Mexico, BLM believes that its impact assessment of negligible to minor impacts to the overall population with localized moderate impacts within Class I around Glamis is accurate as stated in the draft EA. A monitoring program for this species will be addressed in the upcoming wildlife HMP.

Response 3.10

Comment noted. The Bureau believes that the impacts assessment in the draft EA is accurate. The population density in the Mammoth Wash area is low; the area is on the edge of tortoise range.

Response 3.11

Comment noted. See response to comment 3.7.

Response 3.12

The 60 acre size of the exclosures conforms to the approximate size of the microphyll woodland pockets to be protected. These are areas which are currently used by deer, and the deer thus have high motivation to return to them. A 60-acre exclosure is a large area, and should afford considerable protection.

Success of any exclosure of course depends on enforcement, since all exclosures can be breached by determined humans. The same is true of area closures. Fenced exclosures are generally easier to enforce than posted area closures, because of the presence of a physical barrier.

Response 3.13

Small fenced exclosures have proven effective in other sand dune areas as a means of protecting sensitive dune plants. For example, a number of exclosures averaging 4 to 5 acres in size have been established in the intensive use zone of the Pismo Dunes SVRA. The exclosures have been effective in reestablishing species impacted by vehicle use. Shifting sands do of course necessitate periodic maintenance or relocation of the fences. The Pismo exclosures are located in an area with a recreation use density of 330 VUD/acre/year. The Borrego milkvetch is most common in an area which is projected to have a use density of less than 10 VUD/acre/year in 2000 A.D. It is quite possible that impacts will not be substantial enough to require exclosure fencing. A decision on whether or not mitigation is necessary, and exactly the type to be implemented, will depend on observed trends in distribution and relative density, as determined through monitoring studies provided for in the RAMP. If exclosures are constructed, they can to an extent be designed to anticipate the progressive movement of sand features toward the southeast.

Response 3.14

A statement to this effect has been added to Appendix A.

Resources Building
1416 Ninth Street
95814
(916) 445-5656
TDD (916) 324-0804

California Conservation Corps
Department of Boating and Waterways
Department of Conservation
Department of Fish and Game
Department of Forestry
Department of Parks and Recreation
Department of Water Resources

GEORGE DEUKMEJIAN
GOVERNOR OF
CALIFORNIA



4

THE RESOURCES AGENCY OF CALIFORNIA
SACRAMENTO, CALIFORNIA

Air Resources Board
California Coastal Commission
California Tahoe Conservancy
California Waste Management Board
Colorado River Board
Energy Resources Conservation And Development Commission
San Francisco Bay Conservation and Development Commission
State Coastal Conservancy
State Lands Division
State Reclamation Board
State Water Resources Control Board
Regional Water Quality Control Boards

Mr. Roger Zortman
Bureau of Land Management
333 South Waterman Avenue
El Centro, CA 92243

December 15, 1986

Dear Mr. Zortman:

The State has reviewed the Recreation Area Management Plan and Environmental Assessment, Imperial Sand Dunes, Imperial County, submitted through the Office of Planning and Research.

Review of this document was coordinated with the State Lands Commission, Regional Water Board, and the Departments of Conservation, Fish and Game, Parks and Recreation, and Transportation.

The only comment received, that of the Department of Fish and Game, is attached for your consideration.

Thank you for providing an opportunity to review this document and to comment.

Sincerely,

Gordon F. Snow

Gordon F. Snow, Ph.D
Assistant Secretary for Resources

Attachment

cc: Office of Planning and Research
1400 Tenth Street
Sacramento, CA 95814

(SCH 86102919)

State of California

The Resources Agency

Memorandum

To : Honorable Gordon K. Van Vleck
Secretary for Resources
1416 Ninth Street
Sacramento, CA 95814

Attn: Gordon F. Snow, Ph.D.
Projects Coordinator

Date : December 12, 1986

4

From : Department of Fish and Game

Subject : Draft Recreation Activity Management Plan and Environmental Assessment for the Imperial Sand Dunes, U.S. Bureau of Land Management, Imperial County - SCH 86102919

The Department biologists familiar with the Imperial Sand Dunes have reviewed the Bureau of Land Management's Draft Recreation Area Management Plan and Environmental Assessment describing potential environmental impacts of campgrounds development and public use facilities within the Imperial Sand Dunes, located in eastern Imperial County. The document outlines the Bureau of Land Management's proposed administration of recreational use in the Imperial Sand Dunes through the year 1999 and also outlines a program of biological resource data gathering and monitoring.

The management area contains habitat for three plant species listed by the State of California. Two of these - Peirson's milkvetch (Astragalus magdalenae var. peirsonii) and silver leaved dune sunflower (Helianthus niveus ssp. tephrodes) - are state-listed as endangered. The third, Wiggins' croton (Croton wigginsii), is listed as threatened.

4.1 We are not in complete agreement with the proposed Recreation Area Management Plan (RAMP) because proposed facilities could significantly increase public visitor use within the sand dunes rather than accommodate present rates of visitor use. Increases in visitor use could adversely affect the ecological integrity of the dunes and adversely affect state-listed threatened and endangered species. Additionally, proposed mitigation measures to

4.2 offset impacts are not sufficient to reduce impacts to a level of non-significance.

Our specific comments and recommendations are attached.

Thank you for the opportunity to review and comment on this project. If you have any questions, please contact Fred Worthley, Regional Manager of Region 5, at 245 W. Broadway, Suite 350, Long Beach, CA 90802-4467 or by telephone at (213) 590-5113.

Robert C Hight

for Jack C. Parnell
Director

Attachment

ATTACHMENT

Specific Comments Relating to
the Draft Recreation Area Management Plan
and EA for the Imperial Sand Dunes

1. The mitigation measures in the Environmental Assessment proposed to reduce or eliminate negative impacts of Alternative A, the proposed action, are unacceptable because they are either not stringent enough or are not considered mitigation. The initiation of baseline monitoring studies is not mitigation. While these are important and must be done, they do not mitigate for loss of spadefoot toads and habitat. Specific measures to restore toad habitat need to be determined in conjunction with Fish and Wildlife Service and Department of Fish and Game. Exclosure fences are not enough to restore breeding areas if soil compaction has occurred. 4.3

If off-highway vehicle use shifts into the Class L lands south of Glamis along the Southern Pacific Railroad, closing the areas to overnight camping will not compensate for plant and animal habitat loss or Andrews sand dune scarab beetles (A Federal Candidate Category 2 species) that were lost. Additional measures should be developed. 4.4

We cannot accept small site exclosures (10 to 80 yards in diameter) as acceptable mitigation for impacts to Astragulus lentiginosis var. borreganus (Borrego milkvetch). Complete area closures are necessary. Small fenced areas may become desirable play areas for some off-highway vehicle enthusiasts. Also, area closures are necessary to allow the plant to grow adjacent to the areas affected by soil compaction resulting from off-highway vehicle use. These areas should be carefully monitored to make sure that exotic species do not grow in place of Borrego milkvetch. It has been documented that exotic species do better in disturbed areas than desired species. 4.5

2. The RAMP assumes that visitation to the Imperial Sand Dunes will increase at a rate of 5% per year between 1986 and 2000. It is not clear if this takes into consideration the increase in use associated with facility development. If this does include increased visitation due to development, then we suggest that visitation use without development be determined. If increased use due to development is not taken into consideration, then we believe the 5% rate is too low. In either event, facility development will increase visitor use. This issue should be addressed when determining the impacts to the environment. There is probably some point at which lack of development will prevent increased visitation because of overcrowding. This should also be addressed and a more 4.6

4.6 thorough evaluation of the "No Action" alternative be completed. The lack of development may cause a stabilization of visitation to the point that little increase in management is needed. Any alternative which would keep use and resource loss to a minimum would be our preferred alternative.

3. We urge that development of the Mammoth Wash Area be excluded from consideration in order to avoid increased use. Development there would result in undesirable loss of sensitive plant species, desert tortoise habitat, deer habitat, and increases in windmill vandalism and animal harrassment. We believe this area would serve better as a back country experience. The disposition of WSA 360 should not preclude protection of this habitat for deer and sensitive plant and animal species.

4.7

4. Management Prescription 3-1 should state that if not closing Ogilby Campsite creates impacts inconsistent with Class L and WSA IMP guidelines, then the campsite will be closed and the closure enforced. The statement that "appropriate actions will be taken to restrict use of the site" is too vague and does not provide enough protection from impacts. Review of impacts associated with the Ogilby Campsite should be done on an annual basis with the participation of the U.S. Fish and Wildlife Service (FWS) and Department of Fish and Game (DFG).

4.8

5. DFG and FWS should be notified of all proposed organized events in the multiple-use Class L. The Environmental Assessments prepared under Prescription 3-3 should be done in conjunction with FWS and DFG.

4.9

6. We agree with measures to protect WSA 360. These are adequate to protect this area. The measures to protect WSA 362 are inadequate, and we disagree with the supposition that wilderness qualities will be protected by remoteness as off-highway vehicle users in search of back country experience seek out those areas.

4.10

7. "Negligible" impact designations for plant and animal species within any regular vehicle use area are unacceptable. OHV use of sand dune habitat undoubtedly will impact any species more than "negligibly" and most likely result in moderate impacts.

4.11

8. In the RAMP facility development at any particular level is dependent upon the availability of funding for staffing, resource protection, and maintenance for the same level. Facility development should be conditioned upon the provision funding for baseline studies and monitoring of sensitive species. It is very important that development not occur until all the baseline studies have been completed. A statement to this effect should be added to the note in "Part III - The Management Program".

4.12

9. Appendix A outlines the sensitive species baseline data and monitoring studies to be done as part of the RAMP. Footnote 2
4.13 states that FWS will advise BLM on study design and determination of threshholds of unacceptable decline. The DFG should be added to this statement. Also, the determination of
4.14 threshholds of unacceptable decline should be done before any development occurs. Footnote 3 states that these baseline studies are the minimum required and that additional years may be required. Because it is no longer possible to do effective
4.15 baseline studies once development occurs, a statement should be added to the effect that if additional years are required, they must be funded and completed before development occurs.

END OF COMMENTS

Response to California Department of Fish and Game

Response 4.1

See response to 4.6.

Response 4.2

See response to 3.5.

Response 4.3

See responses to 3.5 and 3.8.

Response 4.4

Experience at Gecko Campground and other intensively used campsites indicates that the most severe impacts to plant and wildlife habitat from off-highway vehicle use occur in proximity (1/4 mile or less) to camping/staging areas, where vehicle activity is most intense. The large majority of OHV use in the Imperial Sand Dunes is associated with overnight camping. Closure of areas to camping would make a significant difference in the use intensity of these areas.

Camping activity occurs at low levels on Class L lands south of Glamis at the present time. Recreation and resource monitoring programs prescribed by the RAMP will detect changes to existing use patterns and resource condition, so that a timely management response can be undertaken. If closure to camping or other mitigation measures are determined to be necessary as a result of monitoring study data, they will be implemented.

Response 4.5

See response to 3.13. While the comment concerning exotic species and disturbed areas is generally accurate for non-dune areas, it is not completely applicable to an active dune area. Many of the dune plants of special concern, including Borrego milkvetch, silver-leaved dune sunflower, giant Spanish needle, and Wiggins croton, are highly specialized fast-growing disturbance-adapted species suited to active, shifting dunes. There is no evidence to indicate that exotic species are invading disturbed areas in the Imperial Dunes. The success of small site exclosures in other dune systems suggests that they do represent an effective mitigation measure.

Response 4.6

The RAMP assumes that public demand for use of the recreation area is primarily a function of the presence of the dunes, which provide favorable riding area. The presence or absence of developed facilities has had little effect on the overall

rate of increase in visitor use of the recreation area. Facilities primarily effect distribution of use, not the overall use level or public demand.

During the period 1978-1985, visitor use of the recreation area as a whole increased at an average rate of 5.4% per year. However, the rate of increase was generally higher than average in areas where no facility development occurred and lower than the average where facilities were in fact developed.

The area of active facility development from 1978 to 1985 was in Gecko Campground and along the associated Imperial Sand Dunes (Gecko) Road. In 1978 only 80,000 square feet of hard-surfaced camper parking had been developed in the area, all of it in Gecko Campground. By 1985, this had been quadrupled to 324,000 square feet, distributed along the entire length of Gecko Road. During this same period, visitor use of the Gecko Road area increased at an average annual rate of only 2.5% per year, well under the recreation area average of 5.4%. The rate of increase on public lands in the Glamis area, where no recreational facilities were developed, was 4.4% per year.

The highest rates of increase during this period were in parts of the recreation area which had been relatively lightly used prior to 1978, and on which no recreational developments occurred. Use increased at a rate of 9% per year in both the Buttercup Valley Open Area and the Pilot Knob Mesa (Ogilby) area. The highest rates of increase occurred on lands adjacent to the dune system (along Highway 78 east of Glamis and on East Mesa) which have come to serve as overflow camping and staging areas from which recreationists ride to the dunes, primarily on major holiday weekends.

Facility development is at most a minor factor in the rate of increase in recreational use of the dunes. This is because most sand dunes recreational users are willing and prepared to camp at undeveloped sites. On an average non-holiday winter weekend in 1985, only 32% of the total camping units in the recreation area were found in the developed Gecko area. This percentage dropped to about 25% on busy holiday weekends when additional undeveloped overflow areas were pressed into use.

The basic facilities proposed by the RAMP are unlikely to create additional demand. Demand already exists at a level significantly higher than can be accommodated by existing facilities. Instead, proposed facilities will alleviate sanitation and litter problems in Multiple-Use Class I areas which already receive intensive use. They will also assist in distributing recreational camping use toward Multiple-Use Class I lands and away from resource-sensitive Multiple-Use Class L and M lands.

The point at which lack of development would prevent increased visitation is well above the projected 1.7 million VUDs for the

year 2000. There is currently only one period during the year when the recreation area approaches the total saturation point - Thanksgiving week. The number of camping units found in the recreation area during this week is typically ten times greater than the number found on an average non-holiday winter weekend (8,787 units on Thanksgiving, 1984, versus 898 units on the average 1985 winter weekend). The Thanksgiving use level is twenty times the design capacity of existing developed facilities (430 units). Assuming that 10,000 camping units is the maximum capacity of all developed and undeveloped campsites currently available for use in the recreation area, the theoretical point at which visitation would level off due to overcrowding would be 4.2 million VUDs (assuming a 35-week use season).

It is therefore unlikely that lack of development would limit use to levels below the 1.7 million VUDs projected for 2000 A.D. Lack of sanitation facilities and maintained access roads would more likely contribute to serious public health and safety problems. It would also cause increased encroachment onto Class L and M lands outside the dune system, resulting in expansion of the area impacted.

Facilities proposed in the RAMP will not increase the overall maximum saturation capacity of the recreation area. The proposed RAMP will provide access and sanitation facilities necessary to provide for an anticipated average non-holiday weekend use level of 2,000 camping units by 2000 A.D. Because proposed developments are located in areas of existing use, the maximum saturation capacity will remain at about 10,000 units.

Response 4.7

See response to 3.7.

Response 4.8

Closure of the Ogilby campsite is only one option that will be considered if a use level inconsistent with Class L guidelines develops. Options would include (but not be limited to) closure of the area to camping, imposition of a camping quota system, or closure to all vehicle use. In the event that use does grow to inappropriate levels, specific measures will be determined based on results of monitoring study data.

Provision for an annual review of recreation use patterns and resource condition has been added to prescription 3-9. The FWS and DFG will be invited to participate in these annual reviews.

Response 4.9

In accordance with existing BLM policy, DFG and FWS will be notified of all proposed actions in all multiple-use classes

which could potentially effect State or Federal listed or candidate species. All site-specific EAs in such cases are sent to DFG and/or FWS for review.

Response 4.10

Comment noted. We believe the proposed measures to protect WSA 362 are adequate. If it is determined through WSA monitoring or biological monitoring studies that additional measures are necessary, such measures will be undertaken. The suitability of WSA 362 will not be impaired.

Response 4.11

Impact assessments have been reexamined in response to this and other comments. In evaluating impacts, the definitions of impact levels on the first page of Chapter 4 of the EA should be kept in mind. It should also be remembered that the EA characterizes impacts of the proposed action - those resulting from the specific management proposals contained in the RAMP. Impacts resulting from multiple use classifications and off-road vehicle designations, which are for the most part not changed by the RAMP, were analyzed in the EIS for the California Desert Plan.

The overall level of recreational use is expected to be very similar under the proposed action and no action alternatives. The principal difference will be in the distribution of use, the quality of resource data available for making management decisions, levels of enforcement and public education, and public safety and sanitation. The primary factors considered in evaluation of proposed action impacts to plant and wildlife species are the anticipated consequences of redistribution of use (and consequences of the specific development projects that will effect redistribution), intensified resource monitoring and enforcement, and improved public education.

The impact assessments have been changed to delete reference to "negligible" impacts for plant and wildlife species within areas open to vehicle use. In most cases where this change was made, the assessment was changed to "minor". Minor was judged to be appropriate except in cases of localized negative impacts of RAMP management proposals involving facility developments and resultant redistribution of use from what would occur under the no action alternative. In such cases, localized moderate impacts are predicted.

Because the overall level of use is not expected to change significantly, localized increases in use resulting from RAMP proposals will also result in localized decreases in use of other areas, as redistribution is accomplished. Redistribution of use will be accomplished in a manner consistent with multiple-use class guidelines (i.e., developments occur only in Class I, while use of Classes L, M, and C remains within appropriate levels as defined in class guidelines).

Data obtained from the program of monitoring studies proposed in the RAMP will enable BLM to take timely and appropriate protective action when and where necessary. The positive impact of this element of the proposed action is difficult to assess because the nature of specific monitoring study results and required protective actions cannot be precisely defined at this time. However, the RAMP program emphasizes BLM's commitment to take protective actions when necessary, and establishes a framework for gathering resource data contributory to multiple use decisions.

Implementation of the RAMP will result in improved enforcement of both existing use restrictions and new restrictions developed in response to monitoring study data. Enforcement will be accomplished through an enlarged Ranger staff and addition of a Recreation Technician staff which will assume some visitor services functions currently performed by Rangers. This will allow the Rangers to concentrate even more on resource protection.

The impact characterizations in the final EA take into consideration the full range of proposed actions. With the changes resulting from this reevaluation, the characterizations now accurately reflect the most likely environmental consequences.

Response 4.12

See response to 3.4.

Response 4.13

CDFG has been added to the footnote. BLM welcomes the participation of CDFG in this process.

Response 4.14

Comment noted.

Response 4.15

See response to 3.4. If atypical weather or other conditions occur which would threaten to bias study results, baseline studies will either be postponed or supplemented by additional data gathering.

STATE OF CALIFORNIA—THE RESOURCES AGENCY
GEORGE DEUKMEJIAN, *Governor*

DEPARTMENT OF PARKS AND RECREATION
P.O. BOX 2390
SACRAMENTO 95811
(916) 445-0305

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5

DEC 29 1986

Mr. Roger Zortman, Area Manager
BLM El Centro Resource Area
333 South Waterman Avenue
El Centro, CA 92243

Dear Mr. Zortman:

Recreation Area Management Plan and
Environmental Assessment for the Imperial Sand Dunes

I commend you and your staff on the fine work that is represented in the Imperial Sand Dunes plan. Your plan appears well thought out and considerate of the Off-Highway Vehicle (OHV) users needs. The environmental impacts and visitation levels appear to be roughly the same under both alternatives. The
5.1 principle difference between the preferred alternative A and alternative B (no action) is the level of visitor services.

Your plan identifies, through the years, several elements that would have to be funded by the State OHV Fund. Your plan is very helpful in that it alerts us to your future anticipated funding level requirements. These separate elements will be considered individually by scope and category and according to when the work would actually begin. For instance, you plan to build a dump station in 1995 using State OHV Funds. The California Off-Highway Motor Vehicle Recreation (OHMVR) Commission would consider this item for funding approval during our FY 1994-95 funding cycle. The advance acceptance of a future funding plan, like a 5-year plan, in no way guarantees acceptance of an individual project during the actual funding cycle. Budgets are annual and must ultimately be considered during the funding cycle that coincides with the budget year in which the money would actually start being spent. If you have any questions regarding our comments, please contact Mr. Lowell Landowski at (916) 322-1967.

Sincerely,

Leon J. Chauvet, Deputy Director
Off-Highway Motor Vehicle
Recreation Division

Y-1562V

Roger - Some preparation follow-up would be good. Lee

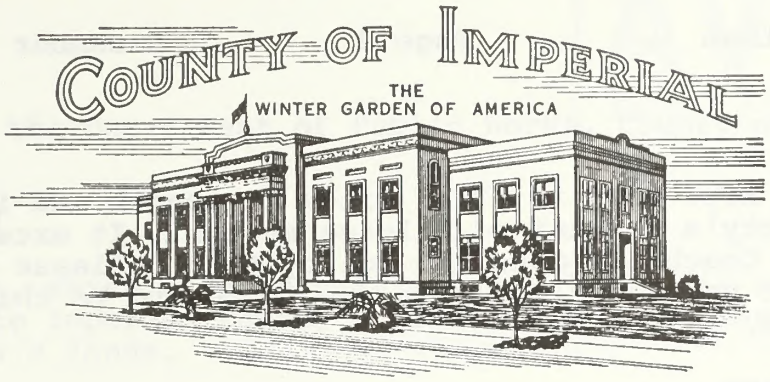
cc: Mr Ed Hastey, Director
Bureau of Land Management
OHMVR Commission

Response to the Department of Parks and Recreation

Response 5.1

While anticipated visitation levels are roughly the same under the Proposed Action and no action alternative, environmental impacts are not. The proposed action provides for a comprehensive resource monitoring and protection program, improved enforcement of closures and other resource protection use restrictions, improved sanitation, and development of facilities to encourage use of lands which have been determined through the Desert Plan to be appropriate for intensive OHV use. The natural dune environment, and particularly plant and wildlife species of special concern, will receive significantly more protection under the proposed action than under the no action alternative. The final environmental assessment for the RAMP has been modified to more clearly reflect this difference.

S. HARRY ORFANOS
DIRECTOR OF PUBLIC WORKS
COUNTY ROAD COMMISSIONER
COUNTY SURVEYOR
COUNTY ENGINEER



TELEPHONE
619-339-4462

6

DEPARTMENT OF PUBLIC WORKS
155 SOUTH 11TH STREET
EL CENTRO, CALIFORNIA 92243-2853

December 22, 1986

Roger D. Zortman, Area Manager
Bureau of Land Management
U.S. Department of the Interior
333 S. Waterman Avenue
El Centro, CA 92243

SUBJECT: Area Management Plan and Environmental Assessment for The Imperial Sand Dunes

Dear Mr. Zortman:

Imperial County has two permits for sand and gravel usage in the Glamis Area (CA-19189 and FP 3-4). These sand and gravel leases have been in continuous operation for many years. Our comments to the above plan are as follows:

6.1 1. Page 100, number 3 (Sand and Gravel Sales and Free Use Permits): Sections 10-4, restricts operations of a sand/gravel pit to a period of June 15th to September 30th. Please confirm that this section is not applicable to Imperial County's sand and gravel leases.

6.2 2. Section 10-5 refers to the non-issuance of Sand and Gravel permits. Please confirm that this section is not applicable to our sand and gravel leases.

6.3 3. The 2nd paragraph of Page 7 discusses limitations on road usage. Please confirm that Imperial County will not be restricted in access to the two sand and gravel pits.

6.4 4. Page 61, Section 6-12 and page 95, Section 9-1 refer to proposed actions by the Bureau of Land Management concerning a County road, Ted Kipf Road.

AN EQUAL OPPORTUNITY / AFFIRMATIVE ACTION EMPLOYER

6.4 Ted Kipf Road is 43.11 miles in length and is in the County's maintained mileage system. It extends from the Coachella Canal to Ogilby Road. Please explain what your complete aims are in regard to this County road.

Sincerely yours,

S. HARRY ORFANOS
Director of Public Works

BY: Philip J. McAndrews
PHILIP J. McANDREWS
Deputy Right of Way Agent

msr

Response to the Department of Public Works, County of Imperial

Response 6.1

This section, which affects only Class I lands, is not applicable to Imperial County's sand and gravel leases, which are on Class M lands.

Response 6.2

This section is not applicable to Imperial County's sand and gravel leases, which are on Class M lands.

Response 6.3

The subject paragraph refers to public recreational off-road vehicle use, not to Imperial County's authorized access to sand and gravel pits.

Response 6.4

The subject sections do not refer to the Ted Kipf Road, which is located east of the railroad. The subject road is the railroad maintenance road on the west side of the tracks. This has been clarified in the text.

CORVA
CALIFORNIA OFF ROAD VEHICLE ASSOCIATION, INC.

7

Roger Zortman
Bureau of Land Management
El Centro Resource District

Re: Imperial Sand Dunes Management Plan

Dear Mr Zortman,

I would like to commend your staff for a fine job on the Draft Plan for the Imperial Sand Dunes. It shows a complete picture, past, present, and future. The workshops held for the public in 1985 show that they worked with the content of the plan having all the major concerns.

I would like to make comment on 3 items in the plan on behalf of our association.

7.1 1. Ref page 43. 2-15. If the dirt road will be restricted to licensed drivers and vehicles then an alternate route parallel to the dirt road should be designated for those vehicles and operators which will be restricted on the road. I am aware that there are numerous trails adjaicent to the dirt road now, but a designated route would possibly make enforcement much easier.

7.2 2. Ref. page 52, 4-6. A fence seems to be an item that would be high cost in installation and maintenance and would still not accomplish the desired result. We feel violators would still breach the fence. The fence would also not have an environmentally aesthetic value to the area. Our suggestion would be to place more signs closer together with the notice of how much the fine is for riding in the WSA.

7.3 3. Ref. page 54, 5-5. This area has historically been one of the most popular sites for camping and should not be closed for camping, We feel a better plan would be to limit the amount of campers which can use the pad and establish an area of the pad which is for site seeing parking and viewing only. We don't feel the entire pad should be set aside for site seeing use. In your own statement you say that camping areas are and will be at a prime for the area. A closure of this popular area would only burden the situation more.

Thank you for the opportunity to comment on the Draft Plan. We will be happy to see many of the additions to the area. Our association has been involved with many volunteer programs in the Imperial Sand Dune complex and we look forward to future projects.

Sincerely,

Mil Thornton

Mil Thornton
Southern Director
CORVA
1243 E. Trenton

Response to the California Off-Road Vehicle Association

Response 7.1

This suggestion for an alternate designated OHV route has been incorporated in prescription 2-15.

Response 7.2

This area is already signed adequately to inform users that the area is closed. The vast majority of violators are fully aware that the area is closed and that they should not be there, yet the number of violations is rising. While BLM agrees that a fence is not aesthetically pleasing, a fence or some other type of barrier is needed along the boundary.

Response 7.3

Although it has long been crowded with campers because of the shortage of camping space elsewhere, the Osborn parking area was originally constructed as a scenic viewpoint. Such a viewpoint for general public use is needed today more than ever. Partitioning the site into camping and day use areas would be difficult to enforce and manage, and would create safety problems associated with concentrated OHV activity on the entrance road and parking area. Camping use on a portion of the upper parking lot would obstruct a portion of the view. Camping at the base of the entrance road creates congestion at the intersection with Highway 78. The rationale for prescription 5-5 is valid, and the scenic overlook is needed. The site will be converted to day use as specified, but only following completion of alternate camping facilities such as those at Roadrunner Campground.

SAN DIEGO CHAPTER
CALIFORNIA NATIVE PLANT SOCIETY
DEDICATED TO PRESERVATION OF THE CALIFORNIA NATIVE FLORA
% SAN DIEGO NATURAL HISTORY MUSEUM, PO BOX 1390, SAN DIEGO, CALIFORNIA 92112

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1986 DEC 4 PM 2:49

8

Roger Zortman
Area Manager, El Centro Resource Area
333 South Waterman Ave.
El Centro, CA 92243

1 December 1986

Re: Draft Imperial Sand Dunes Recreation Area Management Plan (RAMP) and Environmental Assessment. File 8351 (C-067.41)

Dear Sir,

The following comments are submitted for your consideration by the California Native Plant Society (CNPS):

8.1 1. Do not extend the Sand Dunes Road (Gecko Road) Beyond its terminus at the site of Roadrunner Campground because of the presence of a number of sensitive species in the central dunes along the proposed alignment.

8.2 2. Preserve the integrity of the Wilderness Study Areas WSA 360, North Algodones Dunes, and WSA 362, South Algodones Dunes.

8.3 3. It is inconsistent to designate WSA 362 as both Class L (Limited) (Map 3), and Open (Map 4) to off-highway vehicle abuse.

4. The CNPS concurs in designation of the Plank Road and the East Mesa near Gordons Well as Areas of Environmental Concern (ACECs)

8.4 5. Enhance non-OHV activities in the dunes system by enforcing the existing Algodones Natural Area vehicle closure.

8.5 6. Redesignate the South Ogilby Dunes area from "L" to "Closed" for OHV use. OHV use of the area is low and is projected to remain that way.

8.6 7. Provide information on hiking and other non-OHV activities in the recreation area brochure.

8.7 8. The Ogilby campsite, if kept open for public use, should not be further developed. Public use of this area, adjacent to WSA 362, should be discouraged.

8.8 9. Allow no organized vehicle event start/finish/staging/pit areas in Class "L".

10. The CNPS concurs with closure of Osborn Park lookout to camping so that day users and highway travelers are able to use the scenic viewpoint.

1243 S. Trenton

8.9 11. Install interpretive signs regarding sensitive resources and the need for their protection.

12. The CNPS concurs with completion of the Buttercup Valley Access Road (Grays Well Road) to allow public access to the Plank Road area.

8.10 13. We oppose the extension of Montgomery Road to Mammoth Wash. The limited use of this area is desirable from the standpoint of nature study and hikers seeking solitude.

Duffie Clemons

Duffie Clemons
Desert Representative,
California Native Plant Society

copy:
Ken Berg, VP Conservation, CNPS
J. Stewart, President, San Diego Chap, CNPS

Response to California Native Plant Society

Response 8.1

Roadrunner Campground does not require a road extension. It will be built at the end of the Sand Dunes Road. Extension of the road beyond the campground is not proposed.

Response 8.2

The suitability of both WSAs will be protected under the RAMP.

Response 8.3

The Desert Plan designated the Class L lands open in accordance with a general policy of designating sand dune areas as either open or closed for vehicle use, regardless of multiple-use class (See Desert Plan pp. 88-89). Rationale for designation as open is found in Desert Plan Appendix II, Multiple Use Class Decision Rationale 1.e., page 483. This rationale is also cited on page 10 of the draft RAMP.

Response 8.4

This is RAMP prescription 1-4.

Response 8.5

See response 3.6.

Response 8.6

This is RAMP prescription 1-11.

Response 8.7

RAMP prescriptions 3-1 and 3-2 call for no development or organized events at the site. These prescriptions are intended to discourage use. The site will be monitored, and actions will be taken to further discourage or limit use if unacceptable impacts to resources are indicated.

Response 8.8

This is RAMP prescription 3-2.

Response 8.9

This recommendation is incorporated in RAMP prescriptions 5-6 and 5-16.

Response 8.10

See response 3.7.

1245 E. Trenton

MOUNTAIN DEFENSE LEAGUE

P.O. Box 2267, San Diego, CA 92112
(619) 298-3738

9

December 19, 1986

To: Roger Zortman, Area Manager, El Centro Resource Area
333 South Waterman Ave, El Centro, CA 92243

From: Mountain Defense League

Subject: Mountain Defense League review of the Imperial Sand Dune recreation area management plan and Environmental Assessment.

The Mountain Defense League would like to discuss our general philosophy regarding the use of the Imperial Sand Dunes. We favor resource protection, preservation of pristine areas and limitation on the numbers of off road vehicles in general in the sand dune region. Therefore, we favor the protection of the wilderness study areas and their adoption into wilderness status.

In addition, we favor better maintainance of existing facilities in the dune areas under BLM control. If greater levels of money are going to be spent in the future, we feel very strongly that additional funds should be used for additional personnel to patrol the BLM lands. The current levels of patrol for safety as well as law enforcement purposes, is little better than nothing. Additional personnel could assist recreational users with problems and control others in order to limit illegal access and use of closed and protected areas.

9.1 We also feel very strongly that resource protection should be placed highest in priority and that recreational uses be of secondary importance. Public agencies in the Southern California, Arizona region in which population continues to expand should not and cannot expect to provide enough recreational land to meet the continually increasing demands. There must be a limitation on the number of users that the area can support based on resource sensitivity and the impacts of the uses. We are concerned that the proposed plan not expand recreational uses to the degree that they will permanantly impair the natural resource processes on the sand dunes.

9.2 Finally, because of the above concerns, we are concerned about the proposed projects use intensity. The plan proposal document itself is somewhat difficult to address due to the variety of potential choises, but we favor relatively reduced use intensity; that which can be achieved without creating extensive new camp areas and newly graded and paved access roads. We are not convinced that extensive off road vehicle use of public resource lands is appropriate for such a fragile environment.

Byron F. Lindsley Jr.
Director, MOUNTAIN DEFENSE LEAGUE

Response to Mountain Defense League

Response 9.1

See response to comment 3.3.

Response 9.2

See responses to comments 3.1 and 3.3.

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: 18

THE DESERT PROTECTIVE COUNCIL, INC.

A NON-PROFIT ORGANIZATION

10

To safeguard for wise and reverent use by this and succeeding generations those desert areas of unique scenic, scientific, historical, spiritual and recreational value and to educate by all appropriate means children and adults to a better understanding of the desert.

BOX 4294 • PALM SPRINGS • CALIFORNIA 92263

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Amer. Museum Nat. Hist.

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Archeological Survey Assoc. of So. Calif.

KAREN FOWLER
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GEORGE E. LINOSAY
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EDWIN D. McKEE
Geologist

RICHARD SPOTTS
Environmentalist

ROBERT STEBBINS
Herpetologist

VASCO M. TANNER
Brigham Young Univ.

RALPH E. WELLES
Conservationist & Author

FRITS W. WENT
Desert Research Institute

MAURINE WHIPPLE
Author

JAMES WHITEHEAD
Environmentalist

HOWARD WILSHIRE
Geologist

DATE: 12-20-86

REPLY TO:
3750 El Canto Dr
Spring Valley, 92077

Comments on RAMP and Draft EA for Imperial Dunes

The Draft RAMP and EA appear to address the many major issues and conflicts inherent in the area. The presentation is well organized and readable.

There appears to be an internal conflict, however. There appears to be an ever-increasing accomodation for vehicular use and users while claiming that resources and WSAs will be protected.

10.1 It would appear reasonable that first the resources as well as the Wildlife Management Plan should be determined. Then all other uses, both types and levels, would be determined. Adopting the RAMP prior to base-line data is useless and in conflict with the Acts, especially FLPMA and Endangered Species Act.

10.2 As to Alternatives: D and E are "synthetic" and appear to be put into the document for padding. Alternative A would be acceptable if resources and WSA protection were priority one and OHVs, toilets, parking lots and campgrounds were secondary.

10.3 Funding appears to accomdate the emergencies and physical requirements of vehicle users. Protection, data collecting and monitoring as well as educational programs are secondary.

The DPC appreciates the pressures under which BLM operates but such directives are contrary to DPC policy, and philosophy for the past thirty-odd years.

Mary F. Swedelius MFS

Submitted for Mary Swedelius.
Executive Director

Response to the Desert Protective Council, Inc.

Response 10.1

The RAMP is phased so that baseline resource studies and the Habitat Management Plan will be completed, and a monitoring program in place, prior to a final decision to proceed with new development projects. A site-specific environmental assessment which incorporates new data from baseline and monitoring studies will be prepared for each specific project before final decisions are made. The RAMP establishes a framework for decisionmaking - it is not in itself the final decision on any of the projects proposed in it.

Response 10.2

All alternatives are genuine alternatives which received serious consideration.

Response 10.3

Resource and wilderness study area protection are not secondary. The RAMP proposes to quadruple BLM Ranger patrol time in the dunes by the year 2000, and clearly establishes resource protection as the primary function of Rangers. The development program is dependent on the results of resource baseline and monitoring studies which are provided for in the plan. If funding for required resource studies is not available, proposed new development projects will not be implemented. Development projects may also be modified or forgone if warranted by the results of resource monitoring studies.

SIERRA CLUB
SOUTHERN CALIFORNIA REGIONAL CONSERVATION COMMITTEE

725 N. Isabel #8
Glendale CA 91206
December 22, 1986

11

Roger Zortman, Area Manager
El Centro Resource Area
Bureau of Land Management
333 South Waterman Avenue
El Centro, CA 92243

Dear Mr. Zortman,

We appreciate this opportunity to comment on the Recreation Area Management Plan and Environmental Assessment for the Imperial Sand Dunes. There are several significant issues of concern. The Algodones Dunes have long been an area of interest to the Sierra Club. Our members hike and camp in them now as they have for decades.

We appreciate the effort throughout the plan to call for increased efforts to educate the public and ORV users as to the resources present and the potential threats to them that ORV use represents. We remain skeptical, however, that mere words will be sufficient to stem the damage that increasing use levels have precipitated, and are especially alarmed at the obvious intention to develop the entire area as a massive interconnected ORV playground over the next 15 years. If this happens as shown in this draft plan, we believe that California and BLM will have lost one of its truly outstanding natural environments to a destructive recreational fad.

11.1

The Sierra Club is anxious to work with you and your staff in developing a balanced proposal that offers a reasonable level of ORV use in a context of protecting the natural beauty and sensitive species of this area, but must oppose any total relinquishment to unrestricted growth in ORV use, just because the demand exists.

11.2

Why does this plan assume unlimited growth? Does anyone really expect that the dunes can support 1,700,000 VUD's without being totally ruined as a natural environment? What is the carrying capacity? Why are you proceeding with this plan without this information in hand?

11.3

The proposed monitoring program for sensitive species in the Wilderness Study Areas and other areas of interest is long overdue. We have serious concerns as to the impacts of current use levels. However, the implementation of this plan without the Habitat Management Plan called for in Action 3-7 still leaves the

11.3 public without any assurances that meaningful management will be in place. Any effort to implement this plan without this basic provision is like playing roulette blindfolded.

11.4 We are especially concerned with the inclusion of this plan (and its essential baseline studies in Action 3-8) as a Level 2 action, assuming the availability of additional funds. We are well aware that the BLM has generally had less rather than more funding for environmental planning and monitoring in recent years. It is not just the development of the specific facility improvements identified in Appendix A that concerns us, but the overall continuing trend in recreational use of the area without effective management.

11.5 We believe that some guarantee that the HMP will be done in 1987, and that no significant action that may increase use levels will be implemented in the absence of the HMP is necessary.

11.6 The Issue 4 Management Prescriptions are totally inadequate at Level 1, even though they exceed current management efforts (indeed, WSA monitoring has suffered a critical cutback to only two(!) annual overflights just this year). As an example we note that the recreation brochure is listed as Level 1, but the inclusion of WSA boundaries on this map is Level 2. The recreation area brochure should have always had the WSA boundaries on its map, and it should not be reprinted at any level of funding without it.

The following specific concerns relate to individual actions and areas.

11.7 1) Why does the Mammoth Wash Open Area extend so far to the southeast away from Mammoth Wash itself? What are the impacts on the private lands included in the Open Area, and how are you avoiding trespass? The Mammoth Wash Open Area currently

11.8 overlaps a portion of WSA 360. We recommend adjusting the boundary of the Class I area to coincide with the WSA line even though it will not alleviate the trespass problem. This will require a Plan Amendment.

11.9 2) Action 1-10. Isn't this a private section? This is in the heart of the dunes south of Mammoth Wash. How does this relate to the discussion in 1-9 about the development of recreational facilities?

11.10 3) Action 3-17. We are concerned by the proposed Montgomery Road extension. Most of the discussion on use impacts in the Mammoth Wash area seems to assume a fairly steady level of use due to access limitations. If this is to change, much more extensive analysis will be required than given here. As you note, it will be a very major change in use patterns of the area.

11.11 4) Action 6-14. The extension of this proposed east side access route from Glamis almost to the WSA boundary will also act as an inducement for increased ORV use in the north end. This could lead to significant resource impacts along the more vegetated east side of the dunes.

11.12 5) Action 1-13. Will you undertake to keep ORV's from using the developed trailhead parking area for overnight camping and using the adjacent dunes for recreational riding?

11.13 6) Action 3-1. If the Ogilby Campground is found to be causing undue levels of impact at the south end of WSA 362 from introduced recreational use, what are the "appropriate actions" that you would propose to take?

11.14 7) Action 1-8. We strongly object to the opening of the South Ogilby Dunes. This designation cannot but help encourage increased ORV recreation in this area. The "attractive nuisance" aspect of this without an adequate analysis of its potential resource impact is obvious.

11.15 8) Action 6-28, 29, 31, 32, and 33. We continue to object to the conscious development of the Gordon's Well area south of WSA 362 for ORV recreation. This will merely lead to increased levels of use through the WSA to the Ogilby area to the east and the Glamis area to the north. This will greatly complicate your presumed responsibility to protect the wilderness character of this area. Adequate recreational opportunities will exist (consistent with your ability to fund and manage them) at Grays Well, Glamis/Gecko, and Mammoth Wash without having to develop areas at Gordon's Well and Ogilby that are currently very lightly used.

11.16 9) Action 5-2. Why not consider using materials provided by environmental organizations on resource protection and related issues?

11.17 10) Action 5-5. We are very concerned about the proposed development of additional facilities at Roadrunner Campground including an extension of Gecko Road. The proximity of this area to WSA 362 will lead to increased use in the north end of this area, unless significant additional management restrictions are imposed. The additional interpretive signs and other educational efforts proposed are not going to be sufficient, and we fear that the proposed monitoring system will simply tell us that the fox has already been in the hen house.

11.18 The listing of this development as a State OHV funded project indicates that significant management decisions and actions have already been made in anticipation of this plan, without adequate environmental review and public input. Just because the State OHV Commission has money burning a hole in its pocket does not relieve the Bureau of Land Management of the responsibility of complying with NEPA and other relevant federal

11.18 statutes regarding adequate review of such actions.

Environmental Assessment Comments

11.19 The document has only two analyzed alternatives: the proposed action, and no action. To meet the requirements of NEPA a range of alternatives which would cover different use levels, and proposed specific actions which would limit use to those levels would be more appropriate.

11.20 Does the acceptance of Alternative A imply an acceptance of all of the proposed actions. The Sierra Club supports some of the proposed actions, but is opposed to many of those listed for Level 4 especially. Is there an implied range of alternatives through the use of different levels of funding?

11.21 The issue of impacts on public health and safety as a result of inadequate sanitation facilities, and absence of additional ranger patrols to was not discussed. This seems very important in the probable absence of funds to provide facilities an staff for existing and anticipated new higher use levels.

11.22 The issue of water sources to support a weekend population of 250,000 in the dunes is not discussed. Are the public sources adequate tc meet this level?

11.23 The rationale for dropping Alternative D (page EA10) included the assurance of ongoing WSA monitoring. This monitoring has been superficial since no monitoring in the interior of the dunes is taking place on the ground, and aerial monitoring has been reduced to twice a year.

11.24 The rational for dropping Alternative E included the statement that BLM "made a commitment to limit use levels in this (central dunes) area by taking no actions to improve access or develop facilities." How is one to interpret that statement in the light of proposals in Alternative A to add new bridges across the Coachella Canal, extend the road south at Roadrunner and Glamis, and add facilities at Ogilby? How is one to believe that while higher uses levels would impair wilderness suitability if they took place to the south, west or east that it would not impair them with higher use levels to the north?

11.25 Page EA37 details impacts on Wilderness Values for WSA 360 only. WSA 362 also has wilderness values. The impacts to wilderness values for WSA 362 also must be included -- the superficial treatment acknowledging increased intrusions on page EA43 is inadequate.

11.26 Mitigation measures to impacts to reduce or eliminate negative impacts of Alternative A should include the range of alternatives found on page EA10 as rationale for dropping Alternative D. One of the alternatives available to the BLM but

11.27

11.27 not yet suggested in this document is a requirement that areas be closed when the available space is filled. The Forest Service, and Park Service have had to (reluctantly) recognize that is necessary. A local example is the closing of the West Fork of the San Gabriel Mountains area when the area is filled and further traffic would endanger public safety. It may be time for the BLM to consider such actions in the event of the "No Action" alternative. -- the "No Action " alternative is also the outcome of the proposed action if no funds are available.

Sincerely,

Judy Anderson

Judith A. Anderson

Desert Context Chair

JA:ts

Response to the Sierra Club

Response 11.1

The RAMP is an integral part of BLM's program to implement California Desert Plan decisions in the Imperial Sand Dunes. The RAMP is consistent with multiple use class and off-highway vehicle designation decisions of the Desert Plan, which reflect a balanced management program developed with the participation of the full spectrum of public interest groups and individuals. The basic direction of Imperial Sand Dunes management as established by the Desert Plan, and which remains unchanged by the RAMP, was carefully crafted in consideration of unique dunes resources and public concerns for the use and conservation of those resources. Over a five-year period, extensive resource inventories were completed, 18,000 copies of the draft Desert Plan were distributed for public review and comment, twelve hearings were held, and 9,000 written responses analyzed.

The result, as reflected in the final Desert Plan and Imperial Sand Dunes RAMP, does not reflect an intention "to develop the entire area as a massive interconnected ORV playground," nor is it a "total relinquishment to unrestricted growth in ORV use." Over 23,000 acres of the dunes system are closed to vehicle use and are proposed for wilderness designation. Development of access and recreational facilities is prohibited on 80,000 acres of Class L lands, which have been and will continue to be closely monitored to detect unacceptable resource impacts and facilitate timely protective management actions when necessary. All dunes development projects for the management of off-highway vehicle recreation are restricted to the 38,580 acres of Class I lands designated for that purpose by the Desert Plan.

Response 11.2

See Responses 3.3 and 4.6.

Response 11.3

See Response 10.1.

Response 11.4

The HMP was shown as Level 2 because funding to complete it would not be adequate at Level 1 (funding reduction). However, the HMP is programmed for Fiscal 1987 at the current funding level ("Present Management" as discussed on the first page of Part IV - The Management Program). The description of Alternative 2 - No Action has been changed in Chapter 2 of the final EA to show prescription 3-7 (the HMP) as being completed at the current funding level.

While completion of the HMP is possible at the current funding level, implementation of the resource monitoring program (which

will be a central feature of the HMP as well as this RAMP) will require additional funding. Funding is and will continue to be sought from a variety of sources, including Federal appropriated funds, State OHV Funds, and State Environmental License Plate Funds.

Response 11.5

The HMP will be done in 1987. No new projects proposed by the RAMP will be implemented in the absence of the HMP.

Response 11.6

Wilderness study areas continue to be monitored on a monthly (or more frequent) basis, either through ground patrol or overflights (4 flights are authorized for 1987). Level 1 prescription 4-2 has been modified to reflect this.

While we agree that the map change is desirable, we cannot guarantee that the brochure would be revised at a reduced funding level. Republication of existing brochures without changes is significantly less expensive than revising and updating them. The map change will be made during the next republication of the brochure. Prescription 4-4 has been added to the list of items to be completed at the current funding level in the description of Alternative 2 - No Action, in Chapter 2 of the final EA.

Response 11.7

The boundary of the Mammoth Wash Open Area was determined through the 1972 Imperial Sand Hills Management Plan and posted on the ground in 1974 through the Interim Critical Management Plan for Vehicle Use in the California Desert (ICMP). The boundary between the open area and Algodones Natural Area was determined taking resource occurrence, existing use patterns, and manageability into consideration. The ends of the open/closed area boundary were fixed at bridges on the Coachella Canal and Southern Pacific Railroad which were readily identifiable by OHV users. The boundary has remained unchanged since it was originally posted. It was never BLM's intent to limit the open area to the immediate Mammoth Wash area - the name was selected because the wash was the most prominent identifiable feature within the open area boundaries.

Use of the Mammoth Wash area occurs at a low level. Trespass onto the private lands does occur, though the incidence of trespass is minimized by the low level of use. BLM maps and brochures encourage recreationists to obtain permission before entering private lands, though such permission is not required by law on unoccupied, unposted lands. The private sections within the open area are proposed for acquisition through an exchange program with the single owner.

Response 11.8

Although a small portion of the WSA is situated north of the Class I boundary, use of the WSA lands occurs at a low level. Use of the Mammoth Wash Open Area has remained stable at a low level since 1974 when the open area was established, and has not impaired wilderness suitability. Changes in use levels that might threaten suitability are unlikely. The Desert Plan recommended lands within the current closed Algodones Natural Area as suitable (Class C). WSA lands within Class I are recommended nonsuitable. No actions which would increase use of these nonsuitable lands will be considered until after Congressional action on the wilderness proposal. A desert plan amendment is not necessary to protect suitability of the subject lands.

Response 11.9

The reference to "Sec. 16" in prescription 1-10 of the draft was a typographical error. This has been corrected to "Sec. 6" in the final. The lands discussed in 1-9 and 1-10 are identical.

Response 11.10

See response to 3.7. While the impacts to resources from Mammoth Wash development are discussed in the RAMP EA (see especially the discussions of impacts on burro mule deer habitat, wilderness suitability, and the desert tortoise, as well as mitigation measures 1 and 2), a detailed site-specific EA will have to be prepared prior to the decision to proceed or not to proceed with the access road and other developments.

Response 11.11

We presume you are referring to prescription 6-12. The east (Glamis) side of the Glamis/Gecko Open Area already receives the majority (57% in 1985) of that open area's use. The access route proposed for grading already exists and has been heavily used for a number of years. It provides access to existing campsites in the natural hard-surfaced pockets in Class I which are already extensively used. For example, on Thanksgiving Day, 1984, 1,552 camping units utilized this existing access road to reach Class I east-side campsites. At the same time, 1,456 camping units were counted in the rest of the east-side area along Highway 78. Grading the rough road will have little impact on the use patterns during such high-use weekends when nearly all campsites in this area are occupied. It will probably result in redistribution of some use south from the Highway 78 area to the east-side pockets on non-holiday weekends, but is not expected to produce a significant overall increase in east-side use. Development of additional parking facilities in the Gecko area should also result in some redistribution of use from the east to the west side of this Class I area. See also mitigation measure 4 in the final EA.

Response 11.12

Yes. The Niland-Glamis Road along which this facility will be built is regularly patrolled by BLM Rangers checking the boundary of the closed area. A sentence has been added to 1-13 in the final RAMP indicating that the trailhead will be closed to overnight camping.

Response 11.13

See Response 4.8.

Response 11.14

See Response 3.6.

Response 11.15

No developments are proposed at Ogilby. The Gordons Well area received 73,000 VUD in 1985, and cannot be considered "very lightly used". The final EA provides for camping restrictions in the Gordons Well area to minimize impacts to the flat-tailed horned lizard (See mitigation measure 6). Proposed facilities at Gordons Well are intended to provide for basic sanitation needs. More substantial developments (such as a store and concession campground) will be placed south of Interstate 8, in order to center use on that side of the freeway.

The proposed OHV access corridor over Interstate 8 and the All-American Canal will afford Gordons Well campers the opportunity to recreate on the south side of the freeway and canal on Class I lands, instead of being restricted to the north side of the freeway/canal as they are now. Designation of an OHV trail along the Coachella Canal on Class M lands will divert some traffic away from WSA 362. Use patterns and resource condition will be carefully monitored, and protective actions taken to limit use of Class L and WSA lands, if necessary.

Response 11.16

BLM will be happy to consider distribution of available informational and educational materials that convey the resource protection and safety themes of the interpretive program. Prescription 5-2 has been modified to indicate this.

Response 11.17

While the Roadrunner Campground project is located at the end of the Imperial Sand Dunes (Gecko) Road, it does not represent a

road extension. It will not result in an extension into WSA 362 of intensive impacts to vegetation and wildlife habitat.

At Gecko Campground and other regularly used campsites along Gecko Road and State Highway 78, intensive use has resulted in almost total removal of vegetation within a radius of 1/8 mile (660 feet) of the campsites and partial removal within an additional 1/8 mile. Beyond that point, impacts are largely restricted to trails in vegetated areas. Direct impacts from construction and intensive riding around the facility are expected to be contained within a 1/4 mile radius of the facility on Class I lands (the Class I/WSA boundary is over 3/4 mile southeast of the southernmost part of the campground). Approximately half of the expected zone of direct disturbance from the Roadrunner facility has already been disturbed from use originating at existing parking pads at the end of the road.

Sand trails have radiated south, east, and north from the zone of intensive disturbance at the end of the road since before designation of the South Algodones Dunes WSA. Those trails occurring in the WSA were judged to be "ways" during the wilderness inventory process, and were considered substantially unnoticeable as human intrusions. While use of the established sand trail system within the WSA is expected to increase following construction of Roadrunner Campground, significant proliferation of new trails is not expected. The majority of additional riding use is expected to be drawn northward and eastward toward Glamis, Competition Hill, Oldsmobile Hill, and other well-known use areas within Class I, as is the use pattern at Gecko Campground.

Vegetation photo transects will be established southeast of the Roadrunner site before facility construction, and will be periodically monitored following construction. This will enable BLM to detect any proliferation of trails or changes in vegetative condition within the WSA in a timely fashion, and to take measures to protect affected areas if necessary. Impairment of wilderness suitability will not be allowed to happen. BLM would welcome participation of Sierra Club members or any other members of the public as volunteers to assist BLM in conducting our monitoring studies.

Response to 11.18

The Roadrunner project was developed with ample public review and NEPA compliance. Roadrunner Campground was proposed at this site in the 1972 Imperial Sand Hills Management Plan, and has been a matter of public record ever since. Following completion of the California Desert Plan, which designated the site as Class I, El Centro Resource Area staff began studying the feasibility of implementing a facility at this site. The original 1972 proposal, which called for a campground, day use area, and extensive concession facilities, was reduced to a

relatively simple campsite parking facility with restrooms and trash service, similar to Gecko Campground. Application for State OHV Funds was made in 1984. The proposal was publicly reviewed through the regular State OHV project review process, which includes review and discussion of projects at public meetings of the State OHV Recreation Commission. The project was discussed at public issue identification workshops held on the proposed RAMP and outlined in detail in the Imperial Sand Dunes Planning Workbook distributed to the Sierra Club and all participants in the issue identification workshops.

A project-specific EA was prepared in 1984. Because State-listed and Federal candidate species are found in the project area, BLM has requested assistance from the DFG and FWS in developing a mitigation plan for the site. The final selected project location and mitigation measures will reflect the results of their reviews.

Response 11.19

The proposed action and two alternatives were analyzed in the draft EA. Three alternatives to the proposed action are analyzed in the final EA. A description of the final alternatives analyzed (including a discussion of how the final alternatives relate to and differ from the draft alternatives) can be found in Chapter 2 of the final EA.

The general user densities appropriate for the recreation area were defined by the Multiple-Use Class Guidelines of the California Desert Plan. The objective of all analyzed alternatives is to manage the recreation area so that user density within each class remains consistent with appropriate class guidelines. The proposed action and alternatives all propose specific actions to maintain user densities within specified low, moderate, or high categories.

Response to 11.20

As the RAMP states in the first paragraph of "Part III - The Management Program", the funding levels are not alternatives. BLM will seek funding to implement all actions through Level 5. It must be remembered, however, that a plan, such as the RAMP, does not constitute the final decision on individual actions proposed within the plan. Rather, it provides a framework for decisionmaking - a commitment to make decisions within the framework of factors defined in the plan. The RAMP establishes objectives and a direction for management, but it also recognizes the need for additional information before making final decisions. Thus, while the plan proposes facility developments at level 4, it also proposes resource studies and defines the use levels and patterns that will be considered in

making the final decision to proceed or not proceed with implementation of the development projects. Therefore, acceptance of the overall proposed action is not necessarily an acceptance of all individual prescriptions.

Response to 11.21

This issue has been added to the list of issues selected for detailed analysis in the final EA.

Response to 11.22

The maximum anticipated weekend population in the recreation area is about 35,000. This is based on a maximum "saturation" capacity of 10,000 camping units and an average of 3.5 visitors per camping unit. As noted in the response to comment 4.6, this saturation capacity will not be significantly affected by the proposed action. Anticipated population for an average winter weekend in 2000 A.D. would be 7,000 (2,000 camping units).

Water sources are not a significant factor for undeveloped or semideveloped camping such as currently occurs in the dunes. BLM does not supply water at Gecko Campground. The only proposal for BLM to supply water is at Buttercup Valley, where an existing well at the Sand Hills Rest Area will be available when the rest area is removed by CalTrans.

Developed RV parks and other concession facilities would require water. An extensive aquifer is available along the western margin of the recreation area, which would be available for developments at Mammoth Wash, Gecko, and Grays Well. However, the issue of water availability will have to be examined in more detail in the site-specific EAs prepared prior to leasing of lands for concession facilities.

Response 11.23

WSA 362 is monitored a minimum of once a month during the use season. BLM Rangers regularly travel the length of the WSA by vehicle between Gordons Well and Gecko Road, and monitor use zones near Ogilby and south of Glamis. Four monitoring overflights are scheduled for 1987. With implementation of the RAMP, monitoring efforts will intensify, with additional Ranger patrols and resource studies.

Response 11.24

The RAMP proposes no facilities of any kind at Ogilby. The other facilities you mention, and in fact all facilities proposed in the RAMP, are located within Class I areas designated for intensive use. All of the Class I areas near WSA 362 for which facilities are proposed have received intensive use since before the wilderness inventory. Draft Alternative E (final Alternative 6) would redesignate Ogilby, the dunes

between Ogilby and Gordons Well, and East Mesa between Gecko and Gordons Well as Class I, which would permit access and facility development in areas where intensive use does not already exist. The possibility of wilderness impairment and the difficulty of monitoring the condition of the WSA would be increased greatly under Alternative E.

Response 11.25

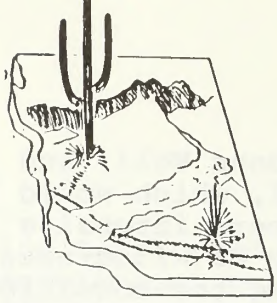
Impacts on wilderness values of WSA 362 are found on page EA 38 of the draft EA (pages EA 42 - EA 43 of the final EA).

Response 11.26

The discussion of mitigating measures in the final EA has been expanded to include the range of alternatives for protective actions found on page EA 10 under Alternative D of the draft. This discussion has also been added to prescription 3-9 (monitoring studies).

Response 11.27

Comment noted. Limiting use in the Imperial Dunes through a quota system would be possible, but would be costly to administer and enforce because of the large number of access points (7 major and a host of minor entry points) and lack of formal defined campsites anywhere except along Gecko Road. On-the-ground definition of camping areas and implementation of controlled access points would require a level of staffing higher than that proposed for Level 5, and would not be feasible in the event of the "No Action" funding level.



Arizona Outdoor Coalition
P.O. Box 31917
Tucson, Az. 85731-1917

December 28, 1986

12

Roger Zortman
Area Manager
El Centro Resource Area
Bureau of Land Management
333 S. Waterman Ave.
El Centro, Calif. 92243

Dear Mr. Zortman:

We would like to go on record opposing any wilderness in the Imperial Sand Dunes. We are against WSA 360 and 362, and question your judgement in placing them there. These areas do not provide opportunity for solitude, and definitely contain evidence of man. Due to the close proximity of the highways and freeways, the railroad, military overflights, and the windmills these areas do not fit the criteria for wilderness. You need to read the definition again.

12.1

Sincerely,

Jim Cain
President

JC/mm

Response to Arizona Outdoor Coalition

Response 12.1

The WSAs were identified by BLM in strict adherence to procedures and guidelines of the BLM Wilderness Inventory Handbook, which were based on provisions of the Federal Land Policy and Management Act of 1976 and the Wilderness Act of 1964. Extensive public involvement was an integral part of the inventory process. BLM is confident that the WSAs have been properly identified.

FRIENDS OF THE TRAIL
22102 Covello St., Canoga Park, Ca., 91303, (818) 348-8381

January 6, 1987

13

Roger Zortman
BLM Area Manager
333 S. Waterman Ave.
El Centro, CA 92243

Subject: Statewide Motorized Trail System

Re: Imperial Sand Dunes RAMP

Dear Mr. Zortman;

After viewing your presentation of the Imperial Sand Dunes Recreation Area Management Plan before the OHV Commission, and reading the draft plan, I would like to point out that the plan makes no mention of the Statewide Motorized Trail Plan.

13.1 It appears to me that the only practical connection to the Mexican border for the SMTS is through the area of this plan. I would therefore suggest that a route starting at the border near Gray's Well connecting the Glamis store and then proceeding north-east be shown on the final plan or at least the statement that such a trail will be located in the near future.

Sincerely,

Jerry Counts

Jerry Counts

cc
Commission
FOTT

Response to Friends of the Trail

Response 13.1

A discussion of the State Trails Plan and its relationship to the recreation area has been added to prescription 1-12 of the final plan.

LYNN R. BROWN
O.H.V. RECREATION & LAND USE CONSULTANT
135 FOURTH AVENUE # D
CHULA VISTA, CALIFORNIA 92010
PHONE : (619) 427-1125

14

December 18, 1986

Roger Zortman, Area Manager
El Centro Resource Area
Bureau of Land Management
333 South Waterman Avenue
El Centro, California 92243

RE: Draft Imperial Sand Dunes Recreation Area Management Plan and Environmental Assessment.

Dear Roger:

I am responding on behalf of the San Diego Off Road Coalition, their member organizations and general membership. We would like to commend you and your staff on presenting such a comprehensive document that addresses all major concerns regarding this important recreational area. It has been a pleasure working with you and we hope to continue well into the future.

It is our feeling that the top priority must be to hire and train as many BLM Recreation Technicians as can be funded. Filling these positions will greatly enhance visitor safety and education as well as promote voluntary compliance with many of the laws and regulations pertaining to OHV use in the area.

The trash dumpsters that have been placed in the area using Green Sticker funding are proving to be very helpful. Many users are now placing their trash in these units instead of leaving it in the dunes. The problem is however that the dumping contract must be changed to include more frequent collection on major holiday weekends. It is not uncommon for the dumpsters to be full thus causing more problems with trash left around the bins. We would also like to see the contract started earlier in the year, say perhaps October.

Much more vigorous enforcement of laws and rules needs to be done. The idea of check points being used at the entrance areas is a good one given the shortage of enforcement personnel. Perhaps assistance at such check points could come from the CHP and volunteers. The enforcement of "first come - first served" in regards to the roping off of camping spaces needs to be pursued. I would suggest a cooperative effort between the BLM, CHP and the Imperial County Sheriff´s Office.

14.1 It has come time to require ALL vehicles operating in the sand dunes to be equipped with whip masts and brightly colored flags. The use of lights on these masts during darkness should be encouraged but since it would be costly for some vehicles to be so equipped it should not be mandatory while the masts with flags would be.

14.2 Our members have forwarded many complaints regarding broken glass in the dunes. We would suggest banning ALL glass containers from the recreation area. Almost all foods and beverages can be either obtained in other types of containers or can be transferred to them from glass. We would suggest seeking the assistance of the stores in the area as well as from the off road media to get the word out about this problem.

14.3 We would also like to see a higher priority placed on providing safe and legal access to and from Glamis/Gecko area and Mammouth Wash and between Buttercup Valley and Gordons Well. After

14.4 reviewing the plans presented regarding access between Buttercup and Gordons Well it appears that Alternative B would best fulfill the users needs.

14.5 Many California OHV owners are concerned that users from Arizona, and there are many in the Imperial Sand Dunes area, are not paying their fair share of management costs. We would suggest some sort of effort to seek some financial assistance from the State of Arizona. If this is not possible we would suggest that ALL OHV's using the Imperial Sand Dunes Recreation Area be required to have a Green Sticker even if it is registered out-of-state.

Again, thank you for the opportunity to be a part of this RAMP. The importance of the Imperial Sand Dunes Recreation Area to the recreating public will continue to grow in the years to come. Efforts such as this and the cooperation we have received from BLM staff will go a long way to insure that the needs of the public will be met well into the future.

For the Coalition,

Lynn R. Brown

Response to San Diego Off-Road Coalition

Response 14.1

Prescription 2-1 has been changed in the final RAMP to indicate that masts with flags will be required, masts with lights encouraged. This is consistent with rules for State Vehicular Recreation Areas.

Response 14.2

Prescription 2-16 remains unchanged in the final RAMP. Beverage bottles are the type of container causing the greatest problem. A prohibition of beverage bottles is also the easiest to enforce, since such bottles are frequently utilized outside of camping vehicles.

Response 14.3

Comment noted.

Response 14.4

Alternative Corridor B as outlined in Appendix C is BLM's second choice for implementation. The cost savings of Corridor A (which does not require construction of a new freeway overpass) compared to Corridor B is significant (approximately $1,000,000). Corridor A remains the BLM proposed action. Corridor B will be pursued if agreement cannot be reached on designation of the Gordons Well Overpass as a combined-use highway.

Response 14.5

BLM Rangers enforce all registration requirements applicable in the state of residence of the owner. All off-road vehicles sold in Arizona after August 1, 1985 must be registered and display a number tag. Revenues from Arizona registration go into the state's general fund and are not available for OHV recreation. Even if there were an Arizona OHV Fund, it would most likely be unavailable for use in California. Any effort by BLM to require California registration of out-of-state vehicles, which cannot be required by the State of California, would be open to legal challenge. It should be pointed out that Arizona residents who buy gas in California do make a contribution to the OHV Fund.

565 Arastradero Rd #205
Palo Alto, CA 94306
NOV. 10, 1986

Mr. Roger Zortman
Area Manager
El Centro Resource Area
El Centro, CA

15

Dear Sir:

I am writing to strongly protest your opening to ORV use the South Algodones Dunes WSA, considering that the BLM admits that vehicle use will result in damage to plants, insects and animals. Obviously ORV damage will have a negative impact on this area's wilderness values. Please reconsider closing this WSA to ORV use.

15.1

Sincerely,
John Miller

Response to John Miller

Response 15.1

See response 8.3. The condition of WSA 362 will be carefully monitored under the RAMP management program. Appropriate management actions will be taken to insure maintenance of viable plant and wildlife populations and wilderness suitability. See prescription 3-9 of the final RAMP and the section on mitigating measures in the final EA.

California Archaeological Site Survey
Regional Office

Desert County of Imperial
Imperial Valley College and
I.V.C. Museum
442 Main Street
El Centro, CA. 92243
(714) 352-1667

pe
PW
SN

16

17 November 1986
Roger Zortman, Manager
Bureau of Land Management
333 South Waterman
El Centro, CA 91243

Dear Roger,

Thank you for the October 16 Draft Recreation Area Management Plan and Environmental Assesssment for the Imperial Sand Dunes. I have completed my review of this well-considered plan, and appreciate the difficulty of having to project needs so far into the future. It is a job you can be proud of.

I have sent my copy to Lorraine Pritchett for reviewing the sections on plantlife.

16.1 On p. 13:4 attention is drawn to the paucity of cultural resources within the dunes area, but notes that Native Americans did cross the sand while traveling between the valley and the river. IVC Museum has identified several trails on both sides of the dunes, and believe that the trails study should be completed before the full implementation of the current plan is actualized. Recreationists attracted to the improved area will range even further than they now do, and will possibly erase the trail system. To the unknowing, the trails do liken to a vehicular track which might be pursued. IVCM will develop a trails plan with BLM Archaeologist Pat Welch. I do believe that one of the systems related to the Greys Well site, and possibly Gordons Well area. Until this is finalized, it would be well to keep open the cultural resources issue, which BLM has dropped (EA5).

16.2 P. 69, 6-33: "Class I" is a typographic error.

16.3 Pp. 70-72, discussing Mammoth Wash development, should consider further the problem of flashflooding in that area. While the flooding does occur in the off-season, the effects could damage or destroy the developments you undertake. Even the Southern Pacific Railroad Company did not try to divert this wash area as it did at most other channels.

Thank you for the job well done.

Jay von Werlhof,
Director IVCM

Response to Jay von Werlhof

Response 16.1

The Bureau will be happy to develop a cooperative agreement with Imperial Valley College to conduct this trail inventory. The issue of impact on cultural resources and Native American values has not been added to the list of issues selected for detailed analysis, for the following reasons:

1. Given the sandy environment of the Grays Well and Gordons Well (Dune Buggy Flats) areas, it is unlikely that any evidence of prehistoric trails can be found.

2. Both the Grays Well and Gordons Well areas, which were designated Class I by the Desert Plan, have been open to vehicle use for many years and have been extensively disturbed by recreational use. It is very doubtful that any signs of Native American trails remain in the intensive use areas at which the RAMP proposes facilities.

3. The most likely location of any remaining prehistoric trail segments is on lands outside the dune system, on which the RAMP proposes no changes except better identification of approved vehicle routes and increased enforcement.

4. Adjacent East Mesa lands will be closed to overnight camping, and signing and enforcement of approved routes of travel will be improved (see mitigation measure 6 in the Final EA). In addition to protecting habitat for the flat-tailed horned lizard, this measure will protect any remaining segments of Native American trails outside the existing intensive use zones.

5. Cultural resource evaluations will be conducted during preparation of site-specific EAs required for all development projects. Imperial Valley College Museum will be consulted during preparation of project EAs.

Response 16.2

"Class I" is correctly used in draft RAMP prescription 6-33.

Response 16.3

Comment noted. Developments would occur north of the wash. The possibility of flash flooding will be considered in the design and layout of the facilities, in the event it is decided to proceed with projects in this area.

UNIVERSITY OF CALIFORNIA, SANTA BARBARA

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DEPARTMENT OF GEOLOGICAL SCIENCES

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15 November 1986

17

Mr Gerald E. Hillier
District Manager,
California Desert District, BLM
1695 Spruce Street
Riverside, Calif 92507

Dear Gerry-

Many thanks for sending me a copy of the Imperial Sand Dunes report dated October 1986. I've finally had a chance to read most of it and have a few comments to offer.

I applaud the plan to eliminate camping at the Osborne Lookout on State Route 78. On most occasions when I bring geology classes there it is difficult or even impossible to find a place to park the university vehicles. If it happens that we visit on a weekend, then we can't talk to the students long before mobs of dune buggies are putting on a noisy demonstration for our benefit. This overpowering urge to show off won't go away just because camping is eliminated, but it will certainly reduce the problem.

The suggestion that an access road from Gecko to Buttercup will not be developed is also an excellent plan as it will ensure that incursions into WSA 362 are minimized. An access road would increase incursions and your policing problems.

17.1 A new Caltrans overpass and interchange at Sand Hills on Interstate 8 is sensible, but as a geologist, I continue to regret that the area between that route and the Mexican border is open to recreational use because, in my opinion, it is the most interesting part of the dune chain from a geologic point of view. Major dune forms stand up to recreational use pretty well, but smaller forms take a terrible licking.

17.2 There is certainly a great need for more rangers and perhaps even more important, more maitenance people to keep ahead of trash at parking areas. Speaking of parking areas, it would be nice for field trip groups if there was at least a little parking on the north side of State Route 78, perhaps with a 2 or 3-hour limit. The contrast between the environment north of the road and that south of the road is quite instructive and I always call it to the attention of the students.

I'm not very enthusiastic about a new bridge across the canal near WSA 362 as it will just make it easier to get into the WSA, but I do realize the ATV's have access now

You folks seem to be doing a reasonable balancing act between very

incompatible uses of the dunes. While I have a very low opinion of any recreational use that is destructive to the environment, I would have to agree that it is a price we have to pay politically, and some sort of firmly enforced zoning is the only sensible approach. What we could get away with when California had a population of 6 million is no longer possible with 25 million or so living here. There are just too many people these days for uncontrolled use.

Best regards

Bob

Robert M. Norris
Professor of Geology, Emeritus

Response to Robert N. Norris

Response 17.1

Comment noted.

Response 17.2

Development of parking on the north side of Highway 78, which is within the WSA, is not permissible. Parking will be available on the south side of the highway at Osborne Park.

It should be pointed out that the intensity of use just south of the highway is extreme, because the south highway shoulder is used as a camping area. The number of surviving plants increases dramatically as one proceeds south into the dunes from the highway area, although this effect is not visible from the road. A perception that the entire area open to vehicles is as barren as the highway corridor would be a gross misconception.

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800 EAST KATELLA, SUITE A • ORANGE, CALIFORNIA 92667
(714) 538-2811

18

MESSAGE

TO Bureau of Land Mgmt.
California Desert District
1695 Spruce Street
Riverside, CA 92507

DATE 11-24-86

SUBJECT

Dear Sirs I am writing to ask if may consider putting a dune buggy/(such as is at Pismo) into dunes from Camping area as it is now there is only a small section of dunes South of 78 in use. I feel one reason is that if a machine breaks too far from road it is hard to get out going over small choppy dunes. I do not mean motorized hard top I mean where a Caterpillar may drag or push a trail once a year or every other year. This would allow people to spread out over

18.1

SIGNED

REPLY

dunes they are allowed drive in. It might be tried first along line A to see if gets used. if it does then B may be tried if it was used then C may be tried I know every body has their own ideas on this and it could be argued over for years. but a trail at A should have minimum impact.

may be state-owned use some of Corps studies money for trial

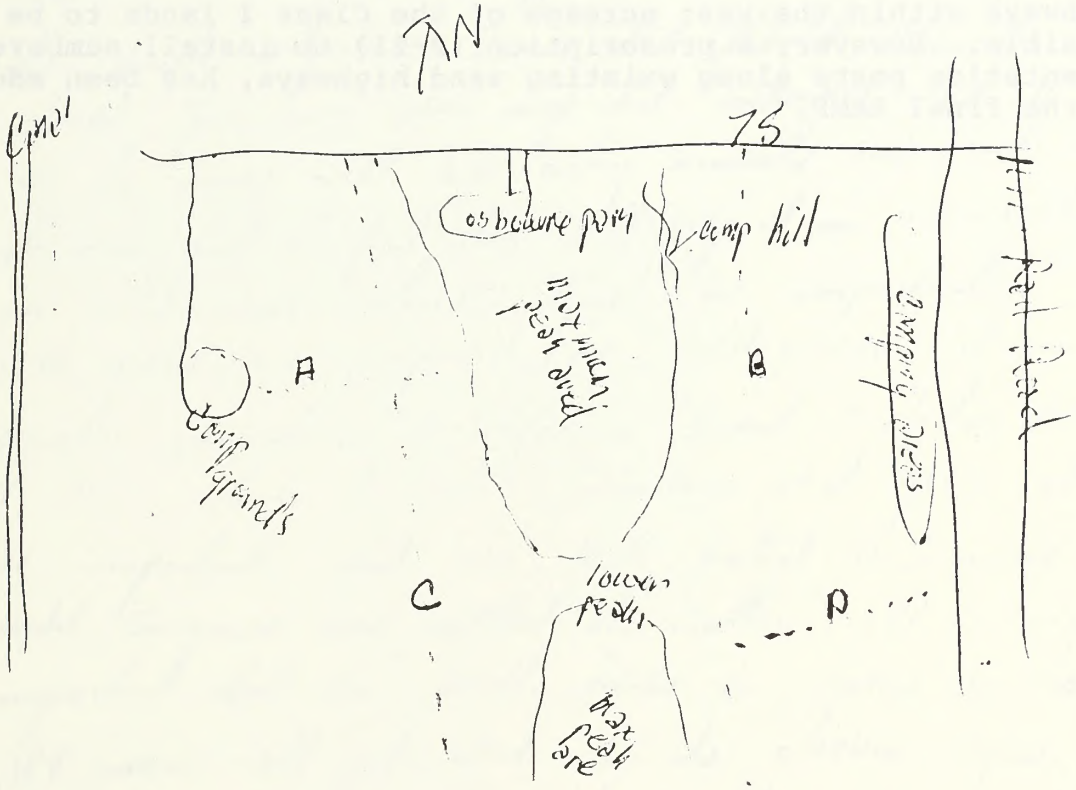
DATE

SIGNED

Item # NS-R93 © Wheeler Group Inc., 1982

Instructions to Sender: 1. Keep yellow copy. 2. Send white and pink copies with carbons intact.

Instructions to Receiver: 1. Write Reply. 2. Detach stub, keep pink copy, return white copy to sender.


NN
75
A
B
C
D

Response to Walter A. Ziemer

Response 18.1

Following receipt of this suggestion, Pismo Dunes SVRA was contacted about the sand highway there. The state park contact indicated that the sand highway there is essentially a natural surface not requiring mechanical maintenance. Numbered orientation posts have been placed at roughly 1000 ft. intervals along the sand highway.

BLM does not consider the mechanical maintenance of sand highways within the vast acreage of the Class I lands to be feasible. However, a prescription (2-21) to install numbered orientation posts along existing sand highways, has been added to the final RAMP.

F-2

November 22, 1986

19

RECEIVED
BUREAU OF LAND MANAGEMENT
1986 NOV 26 PM 2:56
CALIFORNIA DESERT DISTRICT
RIVERSIDE, CALIFORNIA

Dear Bureau of Land Management,

I'm glad and pleased that you are recommending the continued closure of the North Algodones Wilderness Study Area to off-road-vehicles. I feel the South Algodones Dunes WSA should likewise be closed. Your own plan says that continued ORV use in the dunes will kill many animals and plants in the area, and I feel this will impact adversely on wilderness values. Just as importantly, both areas are proposed for wilderness in Senator Cranston's "California Desert Protection Act of 1986", which he will reintroduce next year. It is important that the BLM protect these areas until Congress has settled the matter. It is also important that the south dunes is closed so that ORV users will get used to its closure before possible wilderness designation. It is important to discourage illegal use of wilderness areas even before they are so designated.

19.1

19.2

Sincerely,

Andrew Jones

Response to Andrew Jones

Responses 19.1 and 19.2

See response 15.1. Closure of the area simply to get OHV users used to the idea of closure is inconsistent with the objective of the Desert Plan, which is to protect resources in this area while allowing for low-intensity OHV use.

DRILLING RIG at Drake Well Park, Titusville, Pa., birthplace of the oil industry in 1859 when Col. Edwin L. Drake with the aid of "Uncle Billy" Smith drilled the first oil well.

Sinclair Lewis

USA 14

20

I have read the Draft Recreation Area Management Plan for the Imperial Sand Dunes and would like to keep it. It is the best insight I have ever seen into how the BLM does some of its planning. It is quite educational, & possibly useful, indeed.

Please have your recreational specialist send me one of his business cards. I may want to contact him from time to time about things. Thanks.

LARRY PARKER
BOX 697 WINTERHAVEN
CAL., 92283

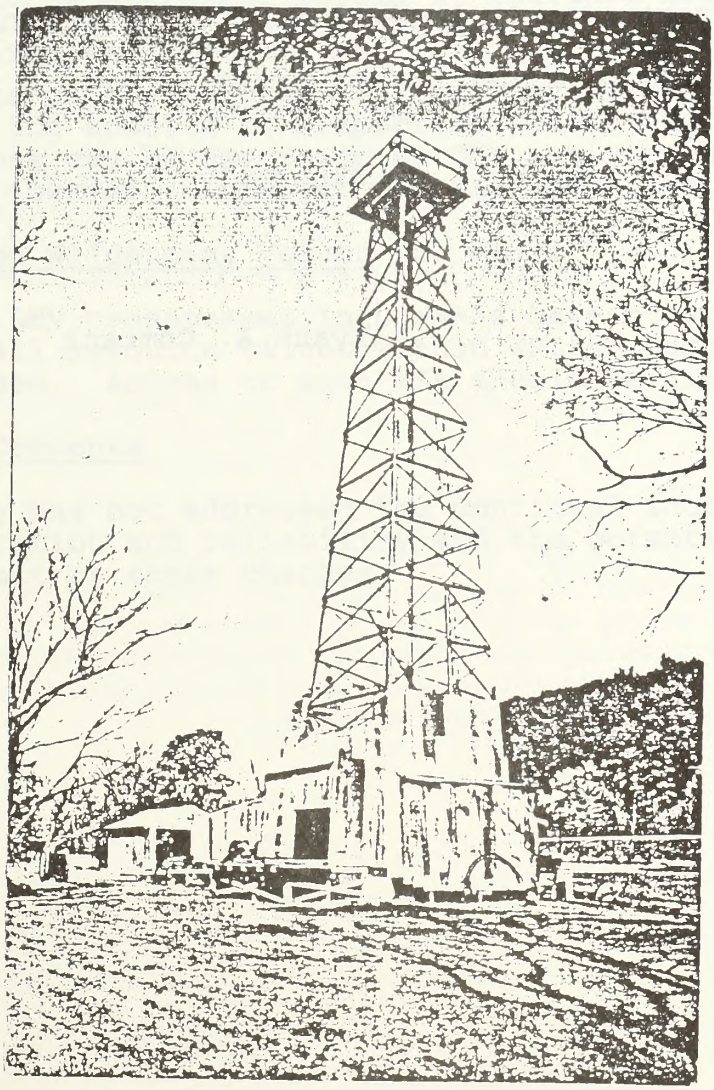
POST CARD

Address

Peter Ertman
Chief, Resource Program Operations
333 S. Waterman St.
El Centro, Cal., 92243

Color Photo by Richard C. Miller

GOLD ROCK TRADING POST 87883



December 9, 1986

RECEIVED
1986 DEC 15 PM 3:00

Lyann A. Comrack
1847 Missouri Street #2
San Diego, CA 92109

21

Roger Zortman, Area Manager
El Centro Resource Area
333 South Waterman Ave.
El Centro, CA 92243

Dear Mr. Zortman:

The following comments are made in regards to the Draft Recreation Area Management Plan and Environmental Assessment for the Imperial Sand Dunes, 8351 (C-067.41), as prepared by the Bureau of Land Management (October, 1986). I appreciate to opportunity to be included in the planning process for this important natural resource. Specific comments are attached, with reference to subheading and page number of the draft report.

Sincerely,

Lyann A. Comrack

Impacts on Candidate Species for Federal Listing as "Threatened" or "Endangered" (p. EA40-EA44)

21.1 The report understates impacts to sensitive plant species. No supporting data is included to substantiate the low level negative impact classifications. Localized impacts by off-highway vehicular (OHV) use completely and immediately removes vegetation (as stated). However, impacts to surrounding vegetation are insidious. Vegetation serves as route markers, impromptu race markers and as markers for OHV recreationists to practice maneuverability and skill. Therefore, vegetation impacts are inevitable and, with time, complete removal of surrounding vegetation will result as a consequence of the recreational activity. In that light, all vegetation negative impacts should be changed from "moderate" to "major".

21.2 Impacts to certain sensitive reptiles are understated. The desert tortoise will experience moderate to major negative impacts within Class I. Tortoise populations are slow to recover from negative impacts (including vandalism and habitat degradation) due to a low reproductive potential. A statement should be included noting loss of individual tortoises as a result of deliberate vehicular impact.

21.3 The status of the Colorado fringe-toed lizard is not adequately addressed. Although the species is widespread within the sand dune region, whole populations may be destroyed by OHV activity where the animal and the activity coexist. At least moderate negative impacts could be expected.

Impacts on Wilderness Values (p. EA37)

21.4 Multiple OHV tresspasses into WSA's have occurred in the past. To fully protect all resource values within WSA's, complete boundary fencing should be provided. Access to each WSA should be limited to a walk-in gate.

General Comments

21.5 The study has not addressed the continual increase in OHV engine size, sophistication and reliability and the potential impacts to the resource as a result of these changes.

Response to Lyann A Comrack

Response 21.1

See response 4.11. On the basis of the definitions of impact levels contained in the RAMP, no major impacts are expected.

Response 21.2

See response 3.10.

Response 21.3

Habitat for the Colorado Desert fringe-toed lizard is widespread both within the recreation area and surrounding region. As part of a general reexamination of impacts (see Response 4.11), the assessment for this species was changed in the final EA to indicate minor negative impacts overall, with localized moderate impacts near areas of proposed facility developments.

Response 21.4

Complete boundary fencing of extensive areas closed to vehicles in a sand dune area is impractical. However, the plan does provide for construction of fences, exclosures, or barricades in problem areas, and increased boundary signing and enforcement. See also responses to 15.1 and 19.1.

Response 21.5

Technological changes are not a part of the proposed action. As the RAMP states in Part I.D. 2., Projected Use of the Recreation Area, the rise in popularity and use of ATVs has no doubt been a major factor in the overall 5.4% per year average rise in visitation and use. This past use increase is considered in the projection of use and potential impacts of the RAMP. The potential impact of changes in engine size and other technical changes is beyond the scope of this plan. However, the plan does provide for a recreation and resource monitoring study program which will detect unforeseeable impacts of technological change, and permit timely management response.

Elliott Bernshaw
P.O. Box 6235
Salt Lake City, Utah 84106

22

December 10, 1986

B.L.M.
El Centro Resource Area
333 S. Waterman Ave.
El Centro, Calif. 92243

Dear Roger Zortman, Area Mgr.:

RE.: COMMENTS ON IMPERIAL SAND DUNES AREA MGMT. PLAN

22.1 I am concerned about your proposed management plan that would continue to allow widespread use of **the South Algodones WSA** by ORV. I do not think any WSA should have ORV activity within it, and I object to your proposed plan to allow this.

PLease put me on your mailing list to receive a copy of the Final Mgmt. Plan when released. Thank you.

Yours truly,

Elliott Bernshaw

Response to Elliott Bernshaw

Response 22.1

See responses 8.3 and 15.1.

Roger Zortman
BLM Area Manager
El Centro Resource Area
333 South Waterman Ave.
El Centro, Calif. 92243

23

Mr. Roger Zortman:

I am writing to regarding the Imperial Sand Dunes Recreation Area Management Plan (Draft).

I think everyone agrees on the need to improve the facilities at Glamis, Gecko and the other high use areas. But I feel that the Mammoth Wash Area should be left undeveloped, with the exception of a trash facilities. This area should be left alone. Any improvements should be used only as a final measure to relieve
23.1 the congession and over crowding in the high use areas and then as a last resort effort (as stated in the RAMP Draft on page 70, section 6-34).

Mammoth Wash being our main area of recreation at the Imperial Sand Dunes. It provides us and other users with the feeling of getting away from the crowds, congestion, and the craziness in general of the other high use areas. At Mammoth Wash you can actually sleep at night !!! Believe it or not. As oppose to the Glamis/Gecko areas. When we go for a "ride" on the "dunes" we don't have to worry about getting run-over by a "crazy", then spending the rest weekend recovering at Brawley's Pioneer Memorial Hospital.

Mammoth Wash is a Sacred spot, an isolated island in a sea of maddness. A little dramatic perhaps, but its the way we feel and strongly I might add. I call it our ATV wilderness area. We love and enjoy Mammoth Wash just the way it is: inaccessible, uncrowded, uncongested and a fun/safe place to take our families to enjoy the desert. With the ever shrinking and over crowding of the

areas where we can ride ATVs, you'll proably realize how precious this areas is to us.

Thank you for your time and consideration it this extremely important matter.

The Mammoth Wash Rural Country Club
(an unoffical group)

Ron Messick
Donna Messick
Rich Messick
Lanna Maranba
Kathy Maranba

P.S.

If any volunteer work for this area is needed any time we would appreciate being informed of the time and place and what needs to be done. Please contact me at:

Ron Messick

Ron Messick
3833 Lindsay St.
Riverside, Ca. 92509

(714) 685-2272

Response to Ron Messick, et.al.

Response 23.1

Comment noted. See response 3.7.

December 19, 1986
12246 Veirs Mill Road
Silver Spring, MD 20906

24

Mr. Roger Zortman
El Centro Resource Area
Bureau of Land Management
333 South Waterman Ave
El Centro, CA 92243

Re: Imperial Sand Dunes RAMP/EA

Dear Sir,

I have no comment at this time on the Draft Impeñal Sand Dunes RAMP and Environmental Assessment. I accept the Proposed Action as outlined in the ~~Mana~~gement Plan and Environmental Assessment.

Please keep my name on the mailing list for future contacts on this issue. Thank you for the opportunity to comment.

Sincerely,
Kevin O'Brien
Kevin O'Brien

December 21, 1986

Roger Zortman
Area Manager
El Centro Resource Area
333 South Waterman Avenue
El Centro, California 92243

25

Dear Roger

I have read and reviewed the Draft Imperial Sand Dunes Recreation Area Management Plan and Environmental Assessment and would like to compliment you and your staff for the excellent job you did preparing this document. The issues identified and solutions you present make me feel confident that the recreation area will be managed professionally, with the concept of multiple use a major consideration in decisions involving the Imperial Sand Dunes. My special thanks go to Steve Nelson for his courteous, concise answers to my questions and his assistance to me in the formation of volunteer trash cleanup teams, sponsored by the California All-Terrain Vehicle Association, that are working in the Recreation Area at Glamis and Gecko.

In my opinion, trash is the most noticeable problem in the Dune System and one that can be resolved by a cooperative effort between the BLM,user organizations and the general public. Long range plans address the location of and access to trash stations adequately, but immediate attention is necessary to increase the use of the existing trash stations at Glamis and Gecko.

25.1 Access to the Glamis Trash Station is being restricted by

displays, camping and long term parking occuring in the vicinity of the dumpsters. Posting and enforcement of parking regulations will allow trash station users to pull through the site and deposit their trash in a quick and easy manner.

25.1

On holiday weekends, especially Thanksgiving, more dumpsters are needed to handle the extra trash generated by the crowds in the camping areas. The public will fill these receptacles instead of placing their trash next to the full dumpsters and trash cans, saving the BLM labor costs involved with picking up the trash and depositing it in the dumpsters themselves or hauling it to the disposal site.

25.2

People are traveling to the desert and using the campgrounds earlier and earlier every year. This year I saw a lot of trash being left at Trash Stations that didn't have any receptacles and laying beside the road in the campground. If you would extend the sanitation vendor's dumpster contract to include the month of October, visitors will use the trash stations instead of leaving the unsightly messes everywhere.

25.3

I'd like to thank you for reading my comments on the Recreation Area. I'm looking forward to working with you and your staff on future projects.

Thank You

Patrick Sibley

Patrick Sibley

Response to Patrick Sibley

Response 25.1

BLM will discuss establishing parking restrictions with the owner of the Glamis Store during upcoming discussions for renewal of the cooperative agreement whereby the trash station is maintained at this central location on private property.

Response 25.2

BLM has made application for State OHV funding to cover the cost of extra dumpsters during peak periods. If approved, this funding will become available in 1989. In the meantime, BLM is covering the cost of extra containers from appropriated funds.

Response 25.3

BLM has made application for State OHV funding to extend the trash station season through October. If approved, this funding will become available in 1989. Until these additional OHV funds become available, the trash station season will begin the first week of November as at present.

Livermore Wholesale

☑ P.O. Box 2449
235 W. Mission Boulevard
Pomona, California 91766
714-629-4001

☐ SVL 7074
13200 Autumn Leaves, Suite 201
Victorville, California 92392
619-245-2344

26

December 22, 1986

Roger Zortman
Area Manager
El Centro Resource Area
333 S Waterman Avenue
El Centro, Ca 92243

Re: Imperial Sand Dunes Management Plan

Dear Roger:

Thank you for allowing me to comment on the Management Plan for the Imperial Sand Dunes, I support many of the ideas you espoused at the November meeting of the Off-Highway Motor Vehicle Recreation Commission. As you know, the Imperial Sand Dunes is one of the most important OHV recreation areas in the State. It draws not only users from California but from Arizona and other states as well.

I heartily support the concept of improving access to existing hard-surfaced areas and thereby encouraging the dispersal of camping use throughout the available class 1 areas. Directional signs would be helpful as well as the grading of the road which leads South along the railroad tracks from the new Glamis store.

I support all of the management prescriptions on pages 36, 37 and 38 as well as 39.

I can support level 1 on page 40 in the safety/emergency/visitor protection area.

Under the research protection heading on page 45, I can support level 1.

On page 51 under the heading of protection of wilderness suitability, I can cupport level 1.

On page 53, issue 5 public contact and interpretation I can support levels 1 and 2.

Issue 6 facility development on page 57, I can support up to level 4.

On page 61 most of the issues in level 2 and level 3 are valid with a few exceptions.

On pages 64 and 75, I would support levels 1, 2 and probably 3. Level 4, item 6-30 is something we can pass up. I readily support item 6-31 under level 5, which constructs a bridge over the All-American Canal. Item 6-32 and 6-33 are extremely important.

Mammoth Wash area, level 4, item 6-34 is interesting, Mammoth Wash is not heavily used and is an area that OHVs can get some use from if it is developed properly. Glamis and Buttercup should be developed in that order with any existing monies left over to be diverted to Mammoth Wash.

Roger, after hearing your presentation at the Off-Highway Motor Vehicle Recreation Commission meeting in November, I believe that BLM is headed in the right direction. Glamis is important and it needs to be developed sensibly. The visitors need to be dispersed in well-marked areas yet the level of service does not need to be intensive because that is why we go to the desert, the mountains and the sand dunes, to get away from being managed. Let's address the problems as they arise and not over manage the areas. Should you have any questions please do not hesitate to contact me. Thank you for this opportunity to comment.

Sincerely,

LIVERMORE WHOLESALE

Jim Livermore

JL:ke

George Ruppi
9100 Wilshire Blvd. S445
Beverly Hills, Ca 90212
February 21, 1987

87 FEB 25 PM 2:16

Mr. Roger Zortman
Area Manager
BLM - El Centro Resource Area
333 South Waterman
El Centro, Ca 92243

27

Dear Mr. Zortman:

I am deeply concerned about the possibly of opening up any more land in Imperial County to off-the-road users. I am against more land for ORV use. As you know the desert is a fragile place. It is not a place to be abused by thoughtless thrill seekers, sirs. I know that the majority of desert visitors are not ORV people. I hope that consideration is given equally to our opinions on how the BLM should protect the desert.

Also I am a landowner in Imperial County - I am saying this not to try and impress somebody. I am a concerned landowner. I am not an outsiders meddling in affairs. I have as much a right to ~~say~~ how the desert is used by people as those ORV people. The BLM seems to me to be neglecting its responsibility to other desert users. All I want is fair and careful consideration given to the first goal of the BLM — namely to protect the land. ORV use should be restricted to the Glamis and Buttercup areas only.

27.1

Sincerely
George Ruppi

Response to George Ruppi

Response 27.1

See Response 11.1

P. O. Box 574
La Mirada CA 90637-0574
April 17, 1987

Bureau of Land Management
333 S. Waterman
El Centro CA 92243

28

Dear Sirs:

28.1 I recently became aware of plans to expand ORV use at the Imperial Sand Dunes. I have grave concerns about this plan, and wish to express these to you.

28.2 Let us keep in mind that ORV use on the dunes is a 'grandfathered' use. People began to use the area for this purpose years ago, before FLPMA was enacted. Thus, the presence of substantial ORV activity on the dunes today can be seen as an historical evolution. It is not, however, a use which has in any meaningful way been planned for or approved of by any administrative or legislative body.

The point I am trying to make is this: ORV use on the dunes is a use which has been tolerated because it began before the CDCA plan was enacted. It is not a use which has been deemed appropriate by any agency assigned to determine the environmental impacts of such use.

With this important thought in mind, I wish to assert that intensive ORV use on the dunes is not appropriate. While it benefits a small and vocal minority who could care less about resource damage, it deprives the greater public of substantial environmental quality.

There are numerous other issues involved:

1) The dunes support several endemic species, both flora and fauna.
2) The dunes are a unique visual resource for uncounted motorists along Interstate 8, who are currently greeted by the spectacle of vehicle tracks everywhere and men urinating on the side of the road (yes, I have personally witnessed this on more than one occasion).

28.3 3) Intensive use of the dunes near Glamis has already resulted in striking resource impacts . . . just drive out there and compare the land on the north versus the south side of the highway.

28.4 4) The South Algodones WSA is included in Senator Cranston's California Desert Protection Act; your RMP should not advocate plans to expand mechanized use in this area until the legislation is resolved. Regardless, expansion of staging areas at Ogilby and other peripheral areas clearly jeopardizes the integrity of the WSA.

28.5 5) Expansion of ORV activities in the Mammoth Wash area jeopardizes the integrity of the North Algodones WSA. You have been successful in limiting intrusions into this area so far, yet it seems doubtful that you can continue to do so if the RMP, as it stands, is implemented.

28.6 6) The BLM is already underfunded to perform the myriad of tasks expected of it (as I'm sure you are already well aware). This unfortunate situation is not expected to improve in the near future. Expanding ORV activity -- a very narrow, intensive and all-encompassing use -- will divert vital agency resources from other areas of concern, e.g., ACEC management and general law enforcement.

All told, I feel that there are ample reasons to limit, not expand, ORV activities throughout the RA, and in particular at the Imperial Dunes. The whims of a recreational minority should not be allowed to supercede other public land concerns, nor to dominate limited management resources.

I must urge you, in the strongest possible terms, to revise the management plan in this regard.

Thank-you for your consideration of this matter.

Sincerely,

Keevin Fisher

Keevin Fisher

Response to Keevin Fisher

Response 28.1

See Responses 3.3 and 11.1.

Response 28.2

In Section 601 (a)(4) of FLPMA, Congress found that "the use of all California desert resources can and should be provided for in a multiple use and sustained yield management plan to conserve these resources for future generations and to provide present and future use and enjoyment, particularly outdoor recreation uses, including use, where appropriate, of off-road recreational vehicles." The California Desert Plan was prepared under the guidance and direction of this law. The Desert Plan found OHV use to be an appropriate use of parts of the Imperial Sand Dunes. The Desert Plan decision was reached only after careful environmental analysis in the form of an EIS. The Imperial Sand Dunes RAMP is consistent with the decisions of the Desert Plan, and provides a detailed framework for implementation of those decisions.

Response 28.3

See Response 17.2.

Response 28.4

The RAMP contains no proposals to expand the staging area at Ogilby, or in any other Class L area. The RAMP does recognize that use of the South Algodones Dunes WSA is likely to increase in the future, but overall user density within this area is expected to remain very low. The condition of wilderness, wildlife, and vegetative resources will be carefully monitored, and appropriate protective actions will be taken if necessary. Wilderness suitability will be maintained until wilderness legislation is resolved, and viable populations of plant and wildlife species will be maintained regardless of the outcome of wilderness legislation.

Response 28.5

See Response 3.7.

Response 28.6

The RAMP is organized by funding levels to insure that development of facilities does not outpace BLM's ability to protect resources and operate and maintain the facilities. See Response 4.6. The RAMP provides a framework within which the

anticipated increase in use can be accomodated with minimum impacts to sensitive resources. See Response 4.11. Increased expenditures will be required if the management challenge of the Imperial Dunes is to be met. As is reflected by the RAMP Implementation Plan, BLM feels that substantial funding support from the OHV user community, in the form of State OHV funds, is appropriate and necessary, so that BLM resources are not over extended.

APPENDIX G
Bibliography

APPENDIX C
Bibliography

APPENDIX G - BIBLIOGRAPHY

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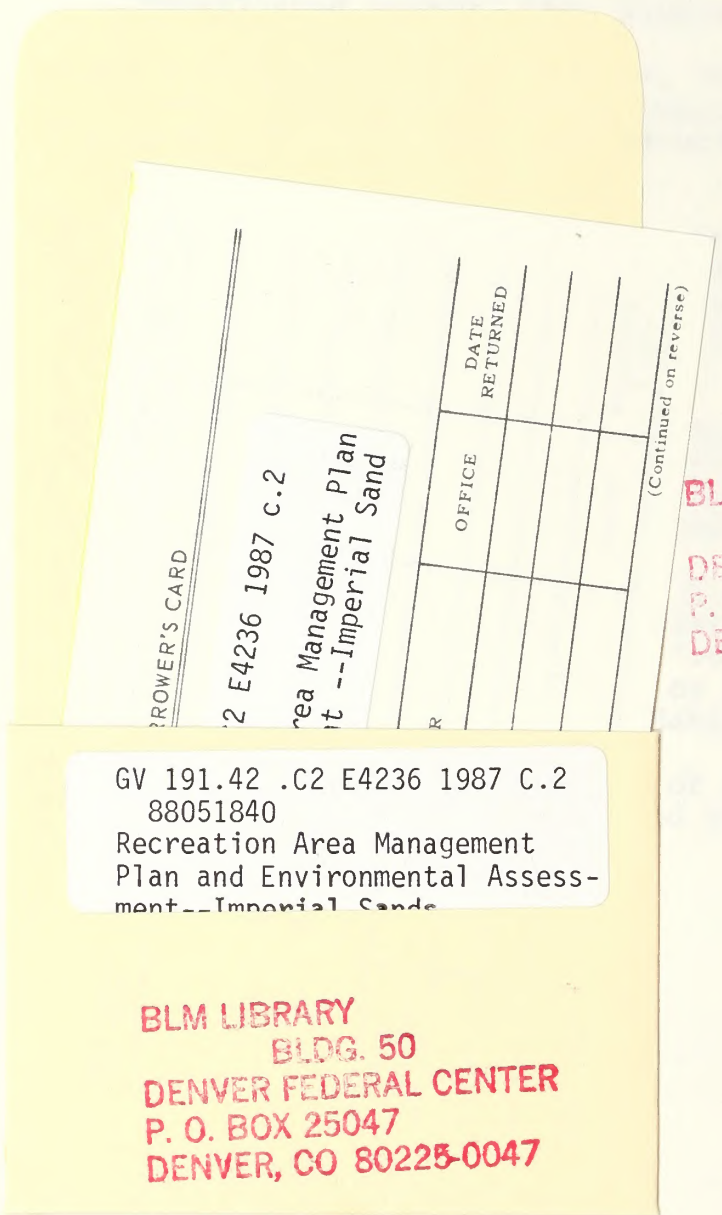
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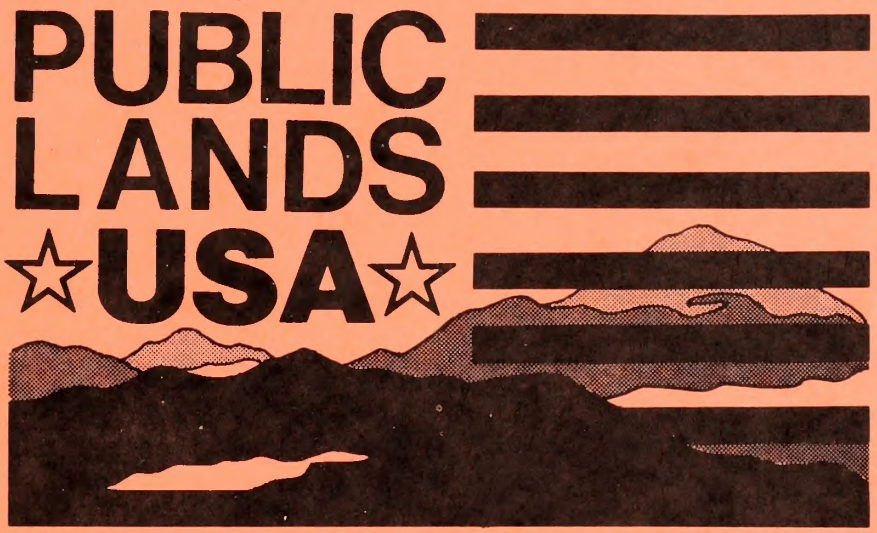
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Bureau of Land Management



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